CALIFORNIA
OIL WORLD

PUBLISHED TWICE A MONTH

PETROLEUM PUBLISHERS, INC.
MEMBER AUDIT BUREAU OF CIRCULATIONS
W. C. MONROE—President and Editor
LARRY O. MILLER, Advertising Manager
FRED JONES, Chicago Manager
228 No. La Salle St., Chicago 1, Ill.

2404 WEST 7th ST.
LOS ANGELES 5, CALIFORNIA
KINZIE MILLER—Vice President

HOWARD F. McCLENAHAN—Cleveland Manager
402 Swetland Bldg., Cleveland 15, Ohio

The McKeown Company—New York Representatives
342 Madison Avenue, New York, N. Y.

SECOND ISSUE
DECEMBER, 1950
VOL. 43 • NO. 24
WHOLE NO. 1814

California Oil World is published twice a month at 2404 West 7th St., Los Angeles 5, California. Entered as Second-Class Matter, April 29th, 1944, at the post office at Los Angeles, California, under the Act of March 3, 1879. Subscription price $1 per year in U. S. and possessions, $2 in foreign countries, including Canada. Member of the Audit Bureau of Circulations.

December 30th, 1950
Telephone DUnkirk 2-6218

Washington Highlights

The Supreme Court has adopted a final decree giving the Federal Government full dominion over the rich oil deposits off the coasts of Texas and Louisiana. In adopting the Government-drafted decree to confirm the decision of last June 5 in the case, the high court also ruled that the states owe the Federal treasury at least a portion of the revenue from the oil realized since the date of the decision. In passing judgment, the court declared "the United States of America is now, and has been at all times pertinent hereto, possessed of paramount rights in, and full dominion and power over, the lands, minerals and other things" in the disputed tidelands areas below the Gulf of Mexico. The Government composed decree adopted in preference to one submitted by the states, also set forth that each state "has not title" in the submerged oil lands "or property interests therein." A Government note accompanying the decree draft, acknowledged that a survey will be necessary to define the area of Federal jurisdiction off the irregular and unsymmetrical Louisiana coast. It contended that no such determination is required for Texas because of the orderly and uniform geography of the shoreline in that state. Legal ownership of the tidelands was awarded the Government on grounds similar to that applied in the court's transfer of California offshore oil deposits to the United States about four years ago. The Supreme Court held that the oil may be vital to national defense. It also maintained that since the Federal Government is the agency of the state in dealing with other nations it must hold full influence over the American coast.

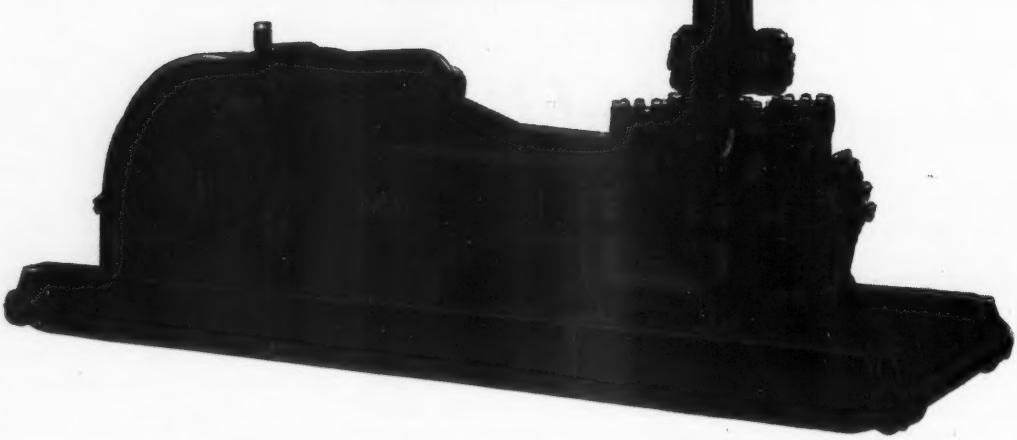
Richard M. Nixon of Whittier, Calif., has taken his seat as a Republican member of the U. S. Senate from California. Vice President Barkley administered the oath of office. Nixon was escorted to Barkley's desk by Senator Knowland, Republican of California. Nixon, elected to a term of six years in the Senate beginning in January, was appointed by California's Governor Warren to succeed Senator Downey, Democrat of California, who resigned because of ill health.

California is slated to be the recipient of the third largest bite of the $400,000,000 in Federal funds that the Public Roads Bureau apportioned for state highway aid. It goes into effect in the fiscal year beginning next July 1. California's share of $20,417,-231 is graded only behind New York and Texas. Never in the history of the world has there been such a migratory increase as in the five western states from 1940 to 1950. In that period, population jumped from 10,-000,000 to 15,000,000 people.

Construction of a 1100-mile oil pipeline from Long Beach to the West Texas oil fields only awaits approval of the Petroleum Administration here. Marc D. Leh, co-owner of the Progress Oil Company in Los Angeles, is understood to plan construction in a few weeks if authority is given for the $120,000,000 project. Leh and his partner, David E. Brown, are quoted in Washington as saying that present plans call for the building of a 24-in. line with a capacity of 300,000 barrels of crude oil a day and a parallel 10-in. products line capable of 65,000 barrels daily from Texas to California. In the event of Federal approval for the line and a certificate necessary to acquire the proper amount of steel, the line will be built by Ford, Bacon & Davis, nationally known engineering and contracting organization. Meanwhile, the Super-Inch natural gas line linking San Francisco Bay with West Texas has been completed. Reports from the Pacific Coast said that the last steel section was set in place at Llanada, 33 miles southwest of Hollister in the Coast Range. Pacific Gas & Electric Company is reported to have made known that valves must be tested and pumping stations finished before delivery of 150,000,000 cubic feet of natural gas begins sometime in January, 1951.

The Pentagon, the world's most expansive office building, is whelming over with people and as a result the Defense Department is acquiring other buildings to take care of armed services employees. A former distillery and three buildings used by a paper mill have been transferred to Defense. They are accommodating 2000 Government workers. Upwards of 200,-000 additional employees are being hired by the military services. Of the total, between 10,000 and 15,000 are likely to fill positions in Washington.

EXTRA RIGID *for* EXTRA LIFE



The extra "beef" that is built into an "Ideal" Slush Pump makes it your best buy for long, trouble-free service.

Thicker sections and properly-placed stiffeners give Ideal Slush Pumps extra rigidity to keep them in proper alignment when pumping loads are severe. Bearings and other parts wear less, last longer with less maintenance.

Conservative rating of "Ideal" Pumps permits short operation at heavy overloads with less danger of expensive failures.

And you can get service and "Ideal" Pump Parts from National Supply Stores strategically located wherever drilling is being done in the United States and Canada.

Write for bulletins.

THE NATIONAL SUPPLY COMPANY

GENERAL SALES OFFICES: TOLEDO, OHIO

NATIONAL BLUE PRODUCTS

DIVISION OFFICES: CASPER; FT. WORTH; PITTSBURGH; TULSA; TORRANCE.

CANADA: THE NATIONAL SUPPLY COMPANY, LIMITED, ROOM 202, ALBERTA BLOCK, CALGARY, ALBERTA.

EXPORT: NATIONAL SUPPLY EXPORT CORPORATION, 30 ROCKEFELLER PLAZA, NEW YORK, N. Y., U. S. A.; RIVER PLATE HOUSE, 12 SOUTH PLACE, LONDON, E. C. 2.

Testing Natural Gasoline Plant Operating Efficiency

By
J. B. ARMSTRONG
Standard Oil Co. of California

This topic covers an extra large field when discussing the role of the chemist and laboratory in efficient natural gasoline plant operations. Almost all tests employed by the chemist in the natural gasoline industry are tools for determining the operating efficiency of some part of the plant. For the purpose of this forum, however, the paper will be limited to a discussion of a test to determine the overall plant operating efficiency as it applies to extraction of L.P.G. and gasoline in the absorption plant only.

The gasoline plant extraction efficiency test consist of several phases:

1. Preparation for the test.
2. Accumulation of operating data and samples for analysis during a period of steady operation of the plant.
3. Analysis of the results to show the accuracy of the data and reliability of the test. This is accomplished by gas and materials balances and by comparison of the test data with design or previous operating data.
4. Determination of extraction efficiencies, product losses, and inefficient and costly operations.
5. Recommendation of corrective measures necessary to obtain more efficient plant operations.

A good plant efficiency test has many important applications. It can be employed as a means of evaluating the operations of a new absorption plant to determine if the plant as a unit will meet the specifications for extraction set forth in the builders contract. It can be utilized as an aid to establish means of increasing efficiency of present plants or to determine the results obtained, after modifications have been made in them. The most important use for the test, however, is as a tool to periodically follow plant operations through years of steady production to eliminate operating inefficiencies and costly maintenance jobs.

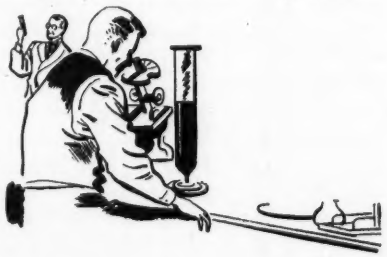
Properly conducted, this test can be employed to gauge the necessary intervals between maintenance shutdowns and to indicate the probable time of replacement of inefficient equipment. It can be used as an aid for anticipating operating and plant maintenance costs.

Most companies do conduct an efficiency test of some sort at frequent intervals. Usually, these tests are spot checks on plant discharge streams to control absorption losses, or efficiency tests on separate units within the plant; and do not include an accumulation of data and analyses to determine overall efficiencies. It is believed that the complete test should be conducted on every gasoline plant every twelve to eighteen months and that sufficient savings can be realized as a result to warrant these periodic tests.

Preparation for the test:

Preliminary work getting ready for a plant test is just as important for a good test as accurate data and analyses taken during the test. Poor and inaccurate data often are a result of poor preparation.

The first step for an overall plant test is to bring the plant flow chart up to date. This chart is a simple schematic flow diagram, which shows the normal flow of materials through the plant. All flow lines; including those which may be used only under abnormal conditions; bypass lines; flow controllers and meters; and all equipment pertinent to the gasoline absorption process are indicated. This is not an elaborate piping drawing, but a schematic layout and should be maintained continually for every gasoline plant. If a flow diagram does not exist, it is recommended that one be drawn up before the plant test is conducted.



The flow chart is checked for correctness by actual inspection of the plant lines and a careful study of the plant cycle is made. Sometimes this may reveal minor changes in the plant, which would effect increased operating efficiency. This is particularly true of plants where incorporation of modern design ideas will increase retention or in plants where many changes have been recently made and the plant cycle is not in the best order. This refers mainly to the disposition of plant vapor and condensate streams. Any obvious improvements within the plant should be recommended and, if possible, these changes should be made before the plant test is conducted.

Contact with field personnel: When making plans for a plant test, field personnel should be contacted and notified of your plans. Sometimes it is best to set a date for the test that is mutually agreeable between both plant and field operators. Request the field operators to maintain, as nearly as possible, an average and steady gas load intake to the plant and to notify you of any upset conditions that cannot otherwise be controlled for the period preceding and during the test. The field operators are quite willing to cooperate in every way they can, and this contact normally assures a much better condition for the plant test.

From the flow chart, it is possible to determine what samples and operating data will be taken during the test. At the time the chart is checked for correctness, sampling locations; thermometer wells; pressure gauge connections; and metering facilities should be noted. The first time that a test is run or after modification of the plant, there are always additional connections and thermometer wells that will be required during the test. It is best

PLANT TEST DATA SUMMARY SHEET

PLANT TEST DATA SUMMARY SHEET

PLANT _____ DATE SEPT. 12, 1950 OBSERVERS DBJ - DLT - JBA

TIME 6 AM To 6 AM

INTAKES	METER NO.	GAS VOLUME MCF/D	CONDENSATE GAL/DAY GASO.	CONDENSATE GAL/DAY WATER	PRESSURE PSIG AVG.	PRESSURE PSIG VARIATION	TEMPERATURE °F AVG.	TEMPERATURE °F VARIATION	WATER CONTENT MCF/D	ENRICHMENT TEST	ENRICHMENT G/M
HIGH PRESS FIELD	241	20800			440	432-451	103	86-125	66	CHARC.	0.84-0.52
REDUCED H.P. FIELD	242	22,260			131	124-137	95	72-123	151	CHARC.	1.01-0.58
LOW PRESS FIELD	243	2,936			7.5	5.8-9.1	84	67-109	78	CHARC.	1.60-1.21
TOTALS		45,996							275		

PLANT DISCHARGE	METER NO.	GAS VOLUME MCF/D	PRESSURE PSIG AVG.	PRESSURE PSIG VARIATION	TEMPERATURE °F AVG.	TEMPERATURE °F VARIATION	WATER CONTENT MCF/D	ENRICHMENT TEST	ENRICHMENT G/M
GAS LIFT	215	11,939	441	432-451					
GAS LIFT	251	5,163	427.5	420-432	96	85-112	10	CHARC.	0.91-0.51
ABSORBER DISCHG.		26,900	423	415-428	89	82-106	37	FRACT.	Ico .086% Ico .063%
RECTIFIER RESIDUE		316	278	275-279	112	NONE	2	FRACT.	Ico .22% Ico .05%
TOTALS		44313					49		

PRODUCTS	VOLUME GALS/D	SPEC. GRAV.	SP.GR.	EXTRACTION G/M	WEATH. TEST RESIDUE	CALC. EQUIV. GAS VOLUME	FRACT. Lic. %
RECT. GASOLINE	26,869	29.7		.33			Co 39
							Ico 18.83
							NCo 28.10
							Cco 52.68
TOTALS							

GAS BALANCE INTAKES	VOLUME MCF/D	WATER CONTENT MCF/D	PLANT DISCHARGE	VOLUME MCF/D	WATER CONTENT MCF/D	PRODUCTS	EQUIV. VOLUME PRODUCTS MCF/D
H.P. FIELD	20800	66	GAS LIFT 215	11,939	10		
R.H.P. FIELD	22,260	131	GAS LIFT 251	5,163			
L.P. FIELD	2,936	78	ABSORBER DISCHG.	26,900	37	RECT. GASO.	721
			RECT. RESIDUE	316	2		
TOTALS	45,996	275		44,313	49		721

GAS BALANCE: WATER FREE BASIS

INTAKES 45,721 MCF/D

DISCHARGE & PRODUCTS 44985 MCF/D DIFFERENCE 736 MCF/D

DRY GAS RATIO DISCHARGE GAS VOLUME / INTAKE GAS VOLUME = .983764 = 164 %

MATERIALS BALANCE ISO BUTANE PLUS

INTAKES	VOLUME	G/M	FACTOR	ISO BUT PLUS GALS/D	DISCHARGE & PRODUCTS	VOLUME	G/M OR %	FACTOR	ISO BUT. PLUS GALS/D
H.P. FIELD	20,800	0.84	.97	16,910	GAS LIFT	17097	0.91 G/M	.84	14928
					ABS. DISCHG.	26,900	.086%	=	760
R.H.P. FIELD	22,260	1.01	.763	21,600	RECT. RES.	316	.22 %	=	24
					GASOLINE	26,827	99.67%	=	26764
L.P. FIELD	2,936	1.60	.996	4,650					
TOTALS				43190					42470

INTAKES 43190 GALS. DISCHARGE & PRODUCTS 42470 GALS. DIFFERENCE 720 GALS. 1.67 %

ISO BUTANE EXTRACTION EFFICIENCY

PRODUCTS	% ISO	VOLUME	ISO BUT. GALS/D	EQUIV. VOLUME ISO BUT. MCF/D	DISCHARGE	VOLUME MCF/D	ISO BUT. %	ISO BUT. MCF/D
GASOLINE	12.83	26,869	3447	105.82	ABSORBER DISCHG.	26,900	.063	16.95
					RECT. RESIDUE	316	.05	.16
TOTALS				105.82				17.11

ISO BUTANE IN PRODUCTS 105.82 MCF/D

ISO BUTANE PRODUCTS & DISCHARGE 105.82 + 17.11 MCF/D $\times 100 = \frac{86.1}{\text{ISO BUTANE}}$ % ISO BUTANE EXTRACTION EFFICIENCY

REMARKS: Plant Potential - Iso Butane 4010 Gals/Day (105.82 MCF/D)

Iso Butane loss in Discharge Gases 553 gal/day (17.11 MCF/D)

PLANT ACCUMULATOR DATA	GAS VOLUME MCF/D	CONDENSATE GALS/DAY GASO.	CONDENSATE GALS/DAY WATER	PRESSURE PSIG AVG.	PRESSURE PSIG VARIATION	TEMPERATURE °F AVG.	TEMPERATURE °F VARIATION
BOOSTED L.P. FIELD		1700		82	78-85	79	70-87
BOOSTED R.H.P. FIELD		01-Nov 2-2900					
MIX TANK				447	442-451	82	74-89
H.P. VAPORS	575	11,700		100	83		
GAS-WATER SEP.		16,000		435	427-446	76	67-90
				29	26-31½	77	69-83

ABSORBER DATA	AVG.	VARIATION	AVG.	VARIATION	AVG.	VARIATION
No.						
TYPE	Bubble Cap					
No. OF PLATES	24					
SERVICE	H.P. FIELD					
PRESSURE PSIG GAS IN						
GAS OUT	423	415-428				
GAS VOLUME IN MCF/D						
OUT	26900					
GAS TEMPERATURE IN °F	97	86-112				
OUT	89	82-106				
OIL CIRC. GAL PER MIN.	290					
GAL PER MCF	14.3					
LEAN OIL FACTOR GAL	18.5					
OIL TEMPERATURE IN °F	79	78-86				
OUT °F	105	96-117				
SHRINKAGE %	7.8					
ISO BUTANE ABS. FACTOR	.98					

STRIPPER DATA: No.	1					
TYPE	Bubble Cap					
No. OF PLATES TOP SECT.	20 Total					
BOTTOM SECT.						
PRESSURE PSIG	324	321-324				
OIL CIRC. G.P.M.	290					
M. GAL / BBL	417					
STEAM PRESSURE PSIG	344					
VOLUME LBS / BBL	7.1800					
LBS / 1000 GAL OIL	182					
TEMPERATURE OIL IN °F TOP	318	NONE				
	304	301-305				
BOTTOM	344	342-346				
STRIPPING FACTOR	1.75					
LEAN OIL GRAVITY	36.3					
H.P. GAS AND AT 100 °F	33					
REFLUX GAL / DAY	57,300					
REFLUX RATIO	1.6:1					
CALC. L.P.V.P. GAL/DAY	178					
ACTUAL LEAN OIL USED	278					

RECTIFIER DATA: No.	1					
TYPE	Bubble Cap					
No. OF PLATES	28					
PRESSURE PSIG	285					
TEMPERATURE °F TOP	206					
°F CONTROL	141					
°F BOTTOM	299					
FEED RATE GAL/DAY	34,100					
REFLUX RATE GAL/DAY	42,000					
REFLUX RATIO	1.15					
REFLUX TEMPERATURE °F	112					
WEATH. TEST RESIDUE %	.54 IC4+					
VOLUME RESIDUE VAPORS	316					
DISPOSITION OF VAPORS	BOILER FUEL					
TOP LIQUID PRODUCT	NONE					
VOLUME GAL / DAY						

COLD OIL VENT TANKS:	1	2
TEMPERATURE °F	103	
PRESSURE PSIG	18.5	
RESIDUE VAPORS MCF/D	665	
DISPOSITION OF VAPORS	To Boosted L.P. Fld.	

HEAT EXCHANGERS: TYPE

ARRANGEMENT	PARALLEL			
TEMPERATURES °F	1	2	3	4
LEAN OIL TO	337	343		
LEAN OIL FROM	159	165		
DEGREES DROP	178	178		
RICH OIL TO	103	103		
RICH OIL FROM	221	267		
DEGREES PICK UP	168	164		
PRESSURES PSIG				
LEAN OIL TO	26	32		
LEAN OIL FROM	16	16½		
PRESSURE DROP	10	15½		
RICH OIL TO	153	181		
RICH OIL FROM	103	115		
PRESSURE DROP	50	66		

CALC. LEAN OIL HEAT LOAD BTU/HR. 12,100,000

CALC. RICH OIL HEAT LOAD BTU/HR.

HEAT LOSS IN LEAN OIL COILS BTU/HR. 3,565,000

HOT OIL VENT TANKS:	1	2
TEMPERATURES °F	271	267
PRESSURES PSIG	101	115
DISPOSITION OF VAPORS	To H.P. Vapors	To H.P. Vapors

PREHEATERS: TYPE

ARRANGEMENT	PARALLEL			
TEMPERATURE °F OIL TO	271	267		
OIL FROM	358	358		
PRESSURE PSIG OIL TO	54	60		
OIL FROM	37	38		
PRESSURE DROP PSI	17	22		
STEAM PRESSURE PSIG	188	184		
TEMPERATURE °F	374	375		
HEAT PICK UP °F	87	91		
APPROACH TO STEAM °F	17	17		

RECT. HEAT EXCHANGERS:

	1		2	
	TEMP. °F.	PRESS. PSIG	TEMP. °F	PRESS. PSIG
FEED TO	83	292		
FEED FROM	206	290		
TEMP. RISE - PRESS. DROP	123	2		
PRODUCT TO	306	215		
PRODUCT FROM	184	212		
TEMP. DROP - PRESS. DROP	142	3		
HEAT TRANSFER B.T.U./HR.				

COOLING CONDITIONS:	AVG.	VARIATION	AVG.	VARIATION
WET BULB TEMP. °F.	58	52-63		
DRY BULB TEMP. °F.	72	62-83		
WIND VEL. MPH & DIRECT.	3-5 MPH @ AT ANGLES TO TOWER			
TOWER	PROBABLY			
VOLUME SPRAY WATER G/M	3960			
VOLUME SPRAY PER SECTION				
SPRAY TEMPERATURE °F	80	72-85		
BASIN TEMPERATURE °F	91			

COOLING COILS	HOT TEMP °F.	COLD TEMP °F.	SPRAY TEMP °F	APPROACH TO WB
L.P. GAS	212	92	85	34
H.P. GAS	248	88	74	30.5
L.P. VAPORS	148	88	74	30.5
H.P. VAPORS	184	86	83.5	21
STRIPPER VAPORS	201	92	89	34
LEAN OIL	161	77	72	19

to request installation of these considerably ahead of any test date to give the plant maintenance crew time to get the work done.

For an overall plant efficiency test, samples are required for analysis on all plant intakes, products, and discharge streams, including any rectifier residue or plant vapors to the plant fuel system. It is recommended, also, taking samples of any intra-plant streams that may indicate operating efficiency. These normally include absorber intakes, recycle vapor streams, and rectifier reflux streams. In addition, if the efficiency of any individual unit is to be determined concurrently, samples will be required around this unit. All samples are taken in accordance with standard sampling procedure. Analysis of the samples of the products and plant discharge gases are determined by fractional distillation. Analysis of the intakes and other plant streams can be determined by fractional distillation or by the charcoal enrichment test.

On low pressure and vacuum streams, sufficient volume of sample cannot be obtained in regular sample containers to conduct a charcoal test on a composite 24 hour sample. If these analyses are to be determined by the charcoal method, the tests must be run from spot line samples during the plant test period. In this case, analyses should be taken on the intakes at times of maximum, minimum, and average enrichments, and the average of all three is used for the plant materials balance.

Sample containers should be set in place well ahead of the test. Large L.P.G. cylinders are used for gas samples. Duplicate samples are taken, if possible, to limit the possibility of losing a sample. Cylinders should be steamed and evacuated, then checked for leaks before being used. Cylinders are hooked up to sampling connections with a short header to prevent danger of condensation in the header system. Each header is equipped with a pressure gauge for determining cylinder pressures during sampling. The header is flushed out with gas and then left connected to the sample line during the entire test. A shipping tag is attached to each container showing the time of sampling, the cylinder pressure for each increment of sample and other pertinent data regarding the sample. The tag is then initialed after each sample increment is taken.

If possible, the cylinders should be set in a shaded spot to protect from changing atmospheric conditions. The heat from open sun will cause changes in pressure on the sample containers between increments and may result in non-uniform samples being taken.

Liquid sample containers are hooked up in the same manner. All liquid samples are taken by water displacements and a measuring cup, to gauge the draw off for each sample increment, should be placed with the bomb at each sample point.

Drips that come into the plant with the intakes are accumulated in the intake scrubbers, or that are collected through a separate gathering system, must be gauged and sampled during the test.

Orifice meters: All orifice meters used for measuring volumes of plant streams must be cleaned, calibrated, and checked prior to the plant test. Static readings on all meters must be checked against a test gauge on the line. New gravity and temperature factors are obtained and meter coefficients are recomputed, if necessary, based on the new data. Orifice plates must be checked to see if the size is correct and within the recommended range for accurate readings. If there is any question as to the size and condition of the orifice plates, they should be pulled and inspected. There is a possibility that the plate may be fouled or corroded, or that sand, line scale, or other matter may have accumulated behind the plate, resulting in a wrong reading.

Experience has shown that failure to check meters and plates thoroughly has resulted in some unsatisfactory plant tests. If one reading is incorrect, the plant materials balance will not check and the final results are questionable. Always question any plant measurement before the test and you will be more likely to obtain good test results.

Pressure gauges, thermometers, recording and controlling instruments, etc. are all calibrated against standard instruments prior to the test. A separate gauge or thermometer should be placed at every location where readings will be taken to avoid moving these instruments during the test. Check that all thermometer wells extend into the flow streams and give accurate readings. Be sure all gauge cocks and thermometer wells are not plugged.

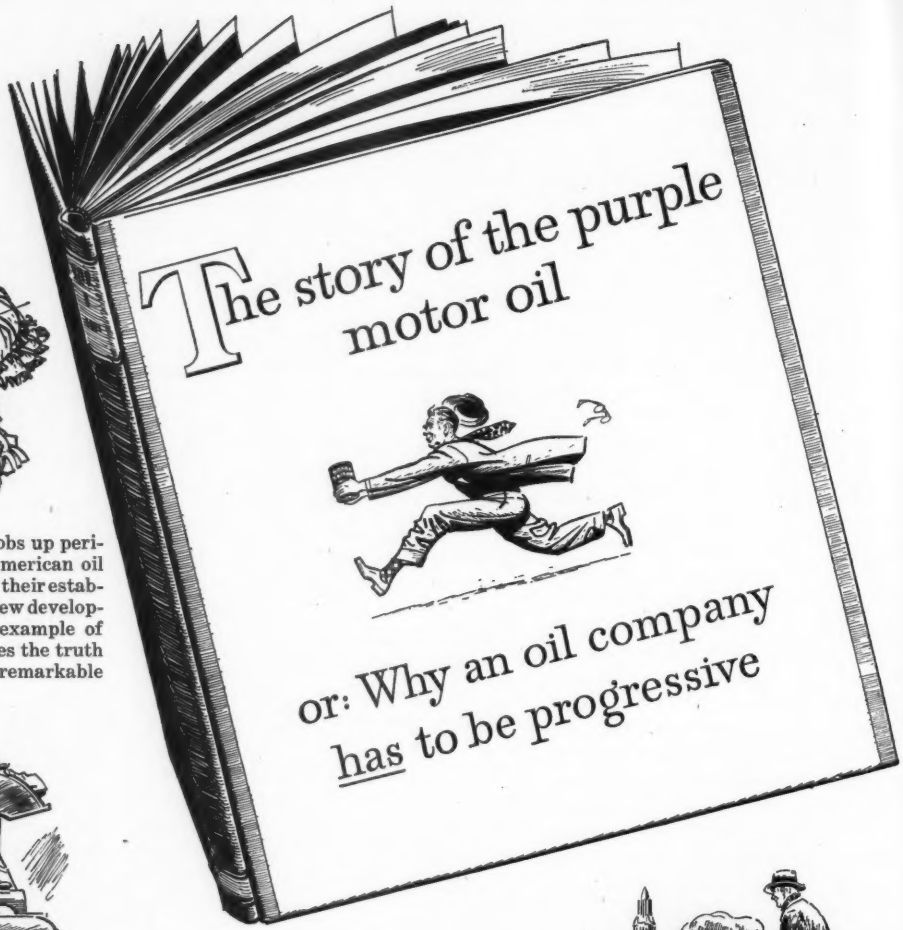
All flow controlling equipment must be inspected to see that it is operating properly. By-pass valves should be inspected to be sure they are correctly open or closed.

The plant test work sheet: Data readings and samples are taken every four hours during a plant test. For ease and speed in taking the data, a test work sheet is prepared. Each reading, sample, or other item required during the test is listed in the order in which it will be taken on each successive round of the plant. The work sheet is built by making an inspection of the plant, recording each point at which data will be required in the order in which they are reached. There is one column for each round of data. This enables the readings to be taken in the same order each time. It eliminates jumping around on a data sheet, hunting the line on which some reading is to be recorded. It prevents missing data and it makes the readings much quicker and easier to obtain. The time of starting and completing each round of the plant is recorded.

After the preparation for the test is completed, one inspection of the plant is made, taking all data readings and checking sample containers to be sure everything is satisfactory. When making plans for your plant test, schedule your work so that you will have plenty of time both for preparation and during the test to complete everything required. Allow time to take care of unforeseen difficulties. Don't schedule too much work for the day of the test. It is better to get the essential data accurately than to plan too much and not be able to complete it.

The plant test:

Normally, the plant test is conducted over a 24-hour period, from gauging time one morning till the same time next morning. Shorter tests are not recommended because variations in atmospheric conditions and intake enrichments, which cannot be controlled, might give er-



1. One old wives' tale that bobs up periodically is the story that American oil companies protect the sale of their established products by keeping new developments off the market. An example of how far this fairy tale misses the truth is the case of Union Oil's remarkable purple motor oil.

2. Shortly after the war, we introduced our new post-war motor oil, Triton. By all standards, Triton was unexcelled. In fact, it was so good we told people they could safely drive it 6 months between drains if they chose. Consequently, we thought our oil program was set for several years. But 12 months later our research engineers came up with a purple motor oil for passenger cars which they said was even better.

3. Just to prove their claims, they sealed it in the crankcases of four new automobiles and drove them continuously up and down the Pacific Coast for 30,000 miles! At the end of the test they opened up the motors and showed us the results: The engine parts were as good as new and the oil—by every analysis—showed no more deterioration than ordinary motor oils exhibit after 1,000 miles.

4. That posed a question. Should we hold this new purple oil off the market for a few years and protect Triton, or put it on sale immediately? The answer was that we had no choice. For we were in *competition*. If we didn't put this purple oil on the market as soon as possible, some of our competitors might develop a comparable product and beat us to the punch.

5. As a result we introduced our purple oil to the motorists of the Pacific Coast under the brand name of Royal Triton. Royal Triton was not only an overnight success with our own Western customers; visitors from the East even took it home with them *and continued buying it by mail*. Consequently, we've expanded our manufacturing facilities and are now marketing it throughout the country.

Moral: Next time anyone tells you oil companies hold improved products off the market, please tell him to see us.

UNION OIL COMPANY

OF CALIFORNIA

INCORPORATED IN CALIFORNIA, OCTOBER 17, 1890

This series, sponsored by the people of Union Oil Company, is dedicated to a discussion of how and why American business functions. We hope you'll feel free to send in any suggestions or criticisms you have to offer. Write: The President, Union Oil Company, Union Oil Building, Los Angeles 17, Calif.

roneous results. At the start of the test, gauges are taken on all gasoline, L.P.G., and lean oil storage. If products are shipped by meter, these readings are also taken. Levels in all plant accumulators and surge tanks must be marked. It is recommended that the plant operators be requested to maintain these levels as nearly as possible at the same point during the test. At the end of the test, corrections must be made in the materials balance to account for any change in volumes in the condensates in the plant accumulators.

After the morning gauge has been made, the first round of data is taken. When a complete set of data is obtained, the work sheet is studied and any data which appears to be out of line should be rechecked immediately.

During the test, it is necessary to gauge the rate of condensate, both gasoline and water, in the various accumulators. This normally requires shutting in the vessel and gauging the rise of condensate over a period of time. It is not necessary to gauge these accumulators every time data is taken during the test, but it should be done at previously estimated times of maximum, minimum and average rates.

At the end of the test period, final gauges are taken on all storage tanks and accumulators. Any change in volume of condensate in the plant accumulators must be determined.

Sample containers are disconnected and checked for leaky valves. Analyses are determined as time permits.

All recording charts are accumulated and kept with other plant test data for reference.

The plant test data summary sheet: A summary of all test data is recorded on the data summary sheet. The first section of the sheet summarizes all data necessary to compute the gas and materials balances and the overall isobutane extraction efficiency. The remainder of the sheet summarizes all operating data.

All volumes entered are corrected to 60°F, and where these readings are obtainable from 24-hour reading charts or gauges, they are utilized. The average of all readings and the variation in these readings during the test are recorded under operating data.

The plant gas balance can be computed prior to the receipt of sample analyses to indicate the reliability of the test data. This is computed on a water free basis, assuming saturated gas streams at all points. The gas balance compares the total of the plant intake volumes with the sum of the plant discharge gas volumes and the gas equivalent volume of the products. This balance should normally check within three percent. This deviation is due to inaccuracy of measurements. Any greater deviation indicates erroneous measurements or losses within the plant.

An overall plant materials balance is computed after all sample analyses have been obtained. If fractional analyses have been determined on all samples, this materials balance is made for each component of the gas. If charcoal enrichment tests have been run on the plant intake samples, the balance is computed on the iso-butane plus fraction only. For greater accuracy in this case, a small correction factor is applied to the charcoal test result to indicate iso-butane plus only. The materials balance should check favorably with the preceding gas balance. Any large deviation between the two indicates incorrect analyses or that measurements, particularly of the products, may be in error.

The plant potential and the overall extraction efficiency can now be computed for any component: propane, iso-butane, or for any desired R.V.P. gasoline. For these calculations, the analyses of the discharge gases and products are used because these data are normally more accurate than the plant intake data. The potential for any component is the total volume of that component available for extraction in the plant. The potential is determined by computing the total volume of the desired component in the discharge gases and the products.

The overall extraction efficiency for any component is then indicated by the ratio of the actual production to the plant potential. This is determined by dividing the volume of the desired component in the products by the total volume of the component in the products and discharge gases.

The data sheet shows some of the plant operating data from a recent test. During this test, a gas balance was obtained with a difference between intakes and discharge streams of only 1.64%. The materials balance for iso-butane plus showed a difference of 1.67%. This is an excellent check and indicates that the volumes and analyses, as determined for the test, are accurate. From these data then, an iso-butane potential of 4010 gals./day is shown and an overall iso-butane extraction efficiency of 86.1% for the plant has been determined.

Although the objective of the test is to establish the overall extraction efficiency of the plant, much of the value of a test of this type comes from the plant operating data obtained. After the summary of the data has been completed, readings are compared with previous test data or with design figures. Differences between these figures may point out definite operating inefficiencies, such as costly steam or heat losses, inefficient heat transfers due to fouling, and possible product losses.

Plant cycle calculations furnish another means of checking the accuracy of the plant test data. Computation of the flow cycle using intake compositions, and temperature and pressure data obtained during the test should check very closely with determined operating efficiencies and volumes and analyses of the products, discharge gas and recycle vapor streams. These calculations may indicate operating inefficiencies which are not otherwise apparent.

The final phase of the plant test is to make recommendations for changes in the plant, which will correct the operating inefficiencies and/or increase extraction. These changes will vary from minor improvements to large scale plant modifications. The payout of the plant test is obtained when these recommendations are carried out and increased operating efficiencies are realized. These are the savings that will warrant additional plant tests in the future.

Presented at the 25th Annual Meeting of the California Natural Gasoline Association, Los Angeles.

THE GRAPEVINE

Just a day before Noor won the Gold Cup at Hollywood Park, another sports event of major consequence took place in the classic confines of the Los Angeles Petroleum Club. This was a doubles match in the Club Domino Tournament in which Cy Rubel and Bill Geis did battle with Fritz Ripley, the Ideco Idol from Torrance, and a small guy whose name modesty forbids us to disclose, but he was certainly a whiz. Spring Street had early established the Rubel-Geis duo as favorites at 8 to 5, and for that piece of gross misrepresentation Spring Street came mighty near getting its fat fingers nipped in the cash register.

A large gallery, numbering between 5 and 7, stood about making futile suggestions one minute, and loudly applauding some rare bit of finesse the next. Among those noted by our domino operative were Joe Gilliland, Peg Whealton, Tom Williams, Paul Terry, and Sam Grinsfelder, and there is no question that they saw one of the greatest tile setting battles ever waged in a major tournament. It looked in the beginning as if the bookies must have known their stuff, for the Rubel-Geis hookup started pegging with ridiculous ease and before the opposition had quite consumed its clam chowder, the favorites had galloped to a two-game lead.

Then just midway between the entree and the dessert. Fritz Ripley caught fire. Introducing a special strategy that he employs only for hopeless situations, he had at his tormentors in such a flurry of fives as is rarely seen hereabouts. Soon the tables were so completely turned they looked like four-poster beds, and the quaking leaders bit their nails in an agony of frustration. While the spectators gaped in amazement, the ravenous Ripley pegged here and there with swift rapier-like thrusts, wending his way up the scoreboard in a veritable breeze and sending the hapless hotshots to the boneyard time after time.

CHAMPION CRIBBAGE PLAYER

Walter Randall Martin, known to all and sundry as "Frosty," and for some years chairman of the Board of Harbor Commissioners at Long Beach, was born in Butler County, Pennsylvania. Just when he came to California is unimportant but that he has been a power for good in the city of Long Beach is undisputed. Frosty was for many years a partner in the firm of Martin Decker and when he sold out to Elmer Decker not too long ago, it was commonly supposed that he would retire into inactivity, but not Frosty! He has probably been busier since he retired than he ever was while he worked. In any case he is pretty generally credited with making Long Beach one of the wealthiest cities in the United States through the granting of oil leases that are very favorable to the lessor. In his spare moments Frosty is one of our better cribbage players. Indeed, he claimed to be the champion of Long Beach until the writer took him down the line one year on the Nomad's train going to the Tulsa Oil Show.

Before they had their cheese and crackers consumed, the score was 2-all and the crucial game of the match was begun. Neck and neck they ran around the first turn then the underdogs began slowly to pull away, holding their slim lead as the teams entered the home stretch. Suddenly, however, in the short straightaway the favorites came thundering in on the outside, and when the cheers of the assembled multitude (between 5 and 7) had died away, Rubel and Geis had won by a nose. It was really a terrific affair and there is actually some prospect of its having to be done all over again, for immediately following the announcement of the judges, the Ripley interests demanded a saliva test and the stewards still have the suggestion under advisement.

In mid-November, along with sundry other inquisitive press men, we were convoyed by Carl Totten, the well known golf and gin rummy impresario, to Emeryville, to look over Shell Oil Company's recently enlarged research facilities there. Having for many years been ourself a pursuer of the elusive radicle, we found the trip through the laboratories completely fascinating. In the heyday of our own puny adventuring in the great petrolic unknown, the calibration of pipettes, burettes, and graduates was almost a major project, and we can well remember once checking the precision of an ASTM method of grease analysis that had knocked out two embryo researchers before we took over.

There were in these days a few odd characters in obscure corners of the basement, with strange looking, home built pressure vessels that sprouted more attachments than the Bailiff's office. These lads were constantly engaged in cracking experiments and everybody gave them a wide berth because their contraptions had a fairish tendency to fly

apart, and a bath in crude oil at 800° F. is definitely something to be avoided. There were other persistent chaps who spent all their time shaking kerosene and fuming sulphuric acid together to find out what happens when kerosene and fuming sulphuric are shaken together. These same fellows are now in all probability experimenting with various mixtures of vermouth and extract of juniper berry in an effort to determine their effects on the taste of a stuffed olive. Anyway, they were the real pioneer researchers but what we started out to prove was that a research department 30 years ago was a pretty drab sort of institution judged by today's standards.

The Emeryville laboratories are stuffed with bright young lads and lassies, half of them Ph.D's, supervising the operation of some of the weirdest looking gadgets it has ever been our lot to see. Every individual project has a very definite primary objective, and even we, with our limited intelligence, could see the commercial possibilities of most of them. Directing the whole business is the very personable Dr. M. E. Spaght, president of Shell Development Company, for whose clarity, lucidity, and general down-to-earthness we fell like the proverbial ton of bricks. We mentioned, in fact, to H. S. M. Burns, president of Shell Oil Company, that we had been more than impressed by Dr. Spaght's capacity to talk interestingly, humanly, and understandably, about what one would expect to be complex and difficult. There was genuine affection in the tone of the Chief when he replied with an intriguing trace of his Caledonian origin, "Oh, Monty, he's a prince!"

We can say for the record that H. S. M. Burns is a prince, too. The upstairs boys call him "Max" which is rather an odd nickname for a Scot, but anyway, we found him remarkably easy to know and to like. He exhibited a fine platform presence; spoke informally but crisply on the future plans of the company and other pertinent matters, dodging none of the many questions that were asked, on the contrary, handling them all very neatly and effectively. Conversationally he was exceedingly interesting and deeply interested. Indeed, he is totally lacking in what might be called the "bigshot" complex, yet is so unmistakably of top executive caliber that it is easy to understand why he is today handling with apparent comfort one of the world's biggest oil jobs.

Incidentally, we were pleased no end to have the privilege of saying hello to Jack Sembower again, a colorful chap with a terrific war record that he just won't talk about; P. E. Lakin, who besides being the company's top western executive is about as handy as they come with a set of golf clubs; Frank Rheems, one of the oil industry's favorite people; and the up-and-coming Sam Bowlby who currently heads the Petroleum Production Pioneers. There were many others who helped make a pleasant and informative interlude for our group, and to all of them we here express our deep and lasting gratitude.

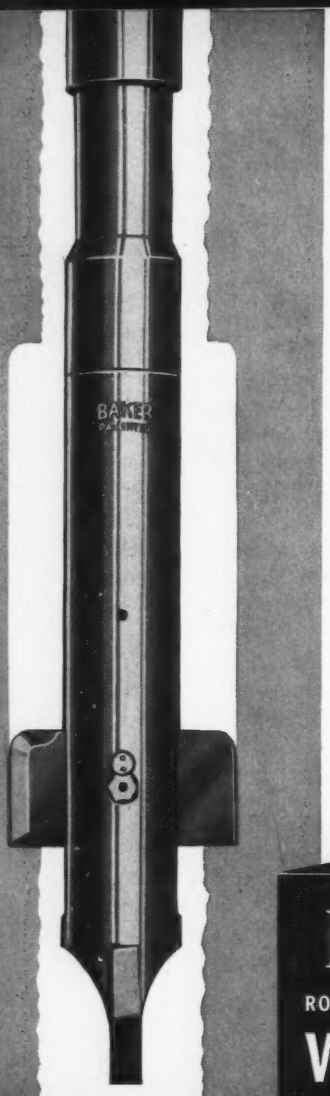
Ray Elliott of the Elliott Manufacturing Company, sometimes known as the Mayor of 108th Street, has just completed a building out there that is quite unique. The place covers about 13,000 square feet, and has capacity for about 15 offices on its two floors. The function of this building is to furnish suitable quarters for manufacturers' representatives, and they can have almost any kind of accommodations they want from telephone service only to a private office. Desk space may also be obtained and occupants of the building may if they wish have the services of stenographers, telephone operators, and a notary public, from a common personnel pool. There is a raft of warehouse space for those who need it, and it is the intention to provide machine shop facilities and a sizable conference room if these should be in demand. The idea looks like a pretty good one and Ray should soon be doing a flourishing business as a landlord.

We have always had a great and wholesome regard for higher education. Some sage of the dim past put it very succinctly or something when he said that a school is a great deal like a coffee factory, its main function is to get the best that can be got out of the bean. Anyway, it is certainly elevating to become acquainted with the works of the world's finest artists, writers, and poets. Exposure to the classics gives to people that lust for scholarship which really turns this sordid old world into a glad song. Take, for example, the brilliant offshoot of Waldo Moore, The Cavins Company biggie from Long Beach. In the quiet of a recent evening and without once referring to his notes, the young man reeled off this strikingly beautiful bit of iambic tetrameter which he had casually picked up at school:

'Tis better to belch
And share the blame
Than to squelch the belch
And bear the pain.

We stagged it to the Don Grubbs' cocktail party the other Saturday night at the California Club and met a terrific assortment of gorgeous femininity. Another thing oil men seem to be expert at besides finding oil wells is picking good looking gals to keep them out of trouble. Besides Don and his lovely lady, we had the distinct pleasure of consorting with the Warner Parkers, Paul Terrys, O. I. "Tork" Torkelsens, Paul Huggins, Roy Flys, C. H. Tuttles, Hudson Drakes, Ham Bells, Bill Brooks, Dick Von Hagens, Elmer Wycoffs, Charlie Allens, John Bells, Al Collins, Warren Johnsons, Jack Smiths, Bob Lytles, Bill Albers, Paul Whitely, the Harold Olympuses, and so many other quality folk, perhaps we shouldn't have mentioned any without mentioning all. It was certainly a grand party, featuring one of the most luscious displays of food tidbits and dainties we have seen in a long time. Everybody obviously enjoyed it immensely, and as for ourself personally we have just called the Oil Well Supply headquarters and begged Don to institute the Grubbs' cocktail party as a weekly affair.

Down at Welch's for lunch a short time ago we ran into Bob Cook, one of the industry's better known people and learned that he had transferred his interest and attachments to the Great Lakes Carbon Co.'s Strata-Crete Sales division of which he is now vice president.



FOR SAFE, LOW-COST HOLE ENLARGEMENT

. . . no other tool is equal to the BAKER ROTARY WALL SCRAPER.– When it is desirable to enlarge the diameter of an open hole to an extent considerably greater than the diameter of the casing, you can depend upon this strong, safe Wall Scraper with blades which open positively when pump pressure is applied. The uncased hole *can be enlarged at any point,* and by changing to progressively larger sizes of blades, an amazingly increased diameter can be secured. Example: No. 6 size Scraper can be run safely through 9⅝" API casing, then will ream from a minimum of 9¼ inches to maximum of 19 inches by changing to increasingly larger sizes of blades.

RUGGED BLADES CLOSE SAFELY

Baker Wall Scraper blades have extra-long vertical cutting edges which prevent any tendency to "corkscrew" and insure scraping the maximum footage of full-gauge hole. And, when the Scraper is to be removed from the hole, pumps are shut down and a strong spring aids in closing blades into body. These blades are made from alloy steel forgings, and their cutting surfaces are hardfaced and set with tungsten carbide inserts to insure long cutting life.

MANY IMPORTANT USES

THE BAKER ROTARY WALL SCRAPER is extremely versatile and is successfully and economically used for many worthwhile applications, a few of which are shown below. It will pay you to learn all about the Baker Rotary Wall Scraper (Product No. 500-D) from your BAKER (or Composite) CATALOG, or better yet, ask the Baker representative in your area for helpful suggestions as to how this efficient tool will fit right into your drilling program.

BAKER

ROTARY HYDRAULIC EXPANSION

WALL SCRAPER

PRODUCT NO. 500-D

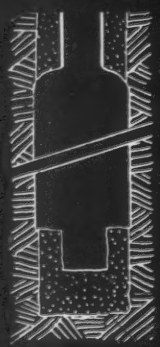


Fig. 1

Fig. 2

Fig. 3

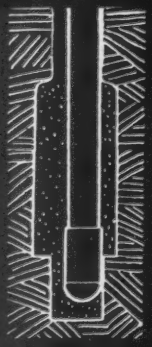


Fig. 4

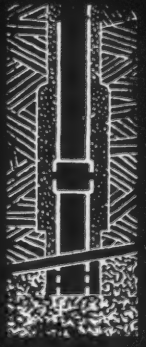


Fig. 5

Fig. 6

These typical uses illustrate a few of the many worthwhile applications of the Baker Rotary Wall Scraper.

Figure 1—WATER SHUT-OFF TESTS are made after rat-holing below the shoe, "wall scraping" for a vertical distance of 5 feet or more to the gauge of the original hole (or slightly beyond). Figure 2—ENLARGING HOLE TO SET CASING OR LINER with maximum ease and safety. Figure 3—REMOVING MUD SHEATH from the face of the formation to permit cement to bond with original formation. This same procedure is used to scrape the face of the oil sand to increase production. Figure 4—BOTTLENECKING to insure complete encasement of the shoe joint with cement; also to minimize hazard of channeling at this vital point. Figure 5—ENLARGING HOLE FOR C.P. JOB—showing "bottlenecked" section with casing or liner serving as water string above, and oil string below, the cementing point. Figure 6—GRAVEL PACKING is easily and effectively performed when the hole has been enlarged with a Baker Rotary Wall Scraper.

BAKER

OIL TOOLS, INC.

HOUSTON • LOS ANGELES • NEW YORK

Don Hall has also switched to the same outfit. Others noted in the ritzy Welch's emporium of good eats were C. R. McKay, Richfield Corporation's manager of refineries and a cluster of his cohorts; Ed Simonis, former AAODC executive, now a roving yachtsman and fisherman; Earl Commack, Richfield pipe line superintendent with whom we did business for many years when he operated efficiently and obligingly as chief dispatcher for the company. Accompanying Earl was Al Gore, a very fine chap, now retired, who preceded him as superintendent. We have sat in many an API committee meeting with Al Gore, Fred Simms, E. L. Adams, Bill Groundwater, Frank Coyle, and other pipe line greats and it is always a pleasure to see them again. Fred Simms is now a big rancher but he gets in to Los Angeles occasionally—we glimpsed him briefly while he was doing the rounds at the API convention.

Schlumberger Executives Visit Naval Reserve No. 4

Fritz Taves and Roger Henquet, Schlumberger executives, took a trip into Alaska some time ago to look over the operations of Alaska Contractors; to exchange field representatives; and to check their own contribution to the general program. They started out from Los Angeles in a company owned plane—a converted B-25 that performed like a Swiss watch every inch of the way—and landed in Fairbanks just after the first snow storm of the year. The all-white landscape was quite a novelty to both of them and they rather enjoyed it, as most people do when they don't have to look at it all winter.

In any case, having reported in at Fairbanks headquarters, the travelers were then flown to Point Barrow by one of these bush pilots whose profound knowledge of flying and the north country has become a legend. At Point Barrow they contacted Gene Davis, project manager, and found him in excellent shape. (Gene has since visited in Los Angeles). Others greeted at the far northern outpost were Karl Vander Ahe, Dick Reese, and Bob Block. (Bob has also in the meantime returned to the southland—to stay).

Roger Henquet

After an examination of the equipment warehoused at the camp at Point Barrow, the party went out to several wells to study operational and environmental conditions and to check the performance of their own equipment. The main impression from the entire adventure, a thoroughly enjoyable one, was that the extreme difficulties of a very rigorous project were being handled in a most capable way, and that in all respects the operational staff at Point Barrow is functioning effectively and efficiently under conditions that are not to be matched anywhere else in the world.

Fritz Taves

Incidentally, the Schlumberger people took in to Alaska with them E. K. Van De Riet to replace F. M. Purcell, as their representative in the region. The latter has done a three-year stint for the Company up in the north country and was brought back to the United States for a well earned leave.

Military Demand Showing Changes

The total District Five or West Coast military deliveries of 99,000 barrels a day of petroleum products last October were 3000 barrels daily under September deliveries. However, there were marked changes in the quantities of various commodities sold to the military departments, according to the U. S. Bureau of Mines. Kerosene jet fuel demand rose 10,000 barrels daily and totaled 13,000 barrels a day while 100-octane aviation gasoline demand dropped a similar amount and totaled 23,000 barrels daily. Navy special fuel oil demand was off 6000 barrels a day to 41,000 barrels. In contrast to a year ago total military demand in October increased 17,000 barrels daily and again extensive fluctuations by commodities were cited by the Bureau. Motor gasoline deliveries jumped substantially but aviation gasoline demand increased. Consequently, total gasoline deliveries to the military held their own by increasing 1000 barrels a day to 34,000 barrels daily. All grades of jet fuel went up strongly in demand. Navy Diesel oil deliveries of 3000 barrels a day were less than one-half the 7000 barrels daily delivered in October of 1949.

Former President Herbert Hoover is being swamped with requests from all sections of the country that he voice his views on the current international situation. Thousands of letters and telegrams have been received by his New York office, Washington heard. Mr. Hoover also has been the recipient of many personal and telephone calls urging him to give his views.

Personalities IN THE NEWS

Personnel Changes and Expansion Program Announced by Power Rig & Equipment Company

An announcement of interest to Pacific Coast and Alaska oil operators has just been made by Mr. John Wilson, President of the Wilson Manufacturing Company, Wichita Falls, Texas.

W. F. York

Mr. Wilson announces the promotion of W. F. York as Manager for Power Rig & Equipment Company, and the advancement of Paul Carpenter, formerly Shop Superintendent and Service Manager, to the position of Assistant Manager. At the same time these two promotions were announced, Mr. Wilson stated that the present staff of Power Rig & Equipment Company would immediately be augmented and inventories increased.

Power Rig & Equipment Company, which was formerly known as the H. & B. Sales Company, Ltd., is the wholly owned sales and service organization for the Wilson Manufacturing Company. In addition to the Wilson lines, they also represent several large national companies selling to the petroleum industry.

W. F. York is very well and favorably known to the California oil companies and drilling contractors. He began working in the oil fields at Signal Hill in 1923 with the Dabney Oil Syndicate. Later he took a connection with the Petroleum Equipment Company, and was with that company until 1935. During the twelve years that he was with the Petroleum Equipment Company, he opened company field stores for them in Bakersfield, Santa Fe Springs, Venice, Mountain View and also worked out of the Taft and Kettleman Hills field stores.

In 1935 Mr. York joined the H. & B. Sales Company, and has been working on the various Wilson lines since that time. It was in 1948 that the Wilson Manufacturing Company purchased the H. & B. Sales Company, changing the name to Power Rig & Equipment Company, and established its present office and shops on Anaheim-Telegraph Road.

Paul Carpenter

Paul Carpenter, Assistant Manager of Power Rig & Equipment Company, joined H. & B. Sales Co. in 1939. During World War II he entered the Navy as Lieutenant j.g. and upon his release had advanced to Commander. He served with the Naval communications division. Following his release from the armed forces he rejoined the staff of Power Rig & Equipment Company as Shop Supt. and Service Manager.

Today Power Rig & Equipment Company handles the Wilson lines for the entire Pacific Coast and Alaska area. Probably the drilling rig farthest north is the Wilson Super Titan rig being used at Point Barrow, Alaska.

H. Paul Grimm, one of California's best known operators, has returned from an inspection tour of oil properties in Texas and other Mid-Continent points.

Charles R. Allen, regional general manager of Continental Oil, announces organizational changes in the western region office as follows: F. C. Havens, assistant to the regional general manager, has been transferred to the Platte Pipe Line Company as treasurer. An affiliated company, headquarters are at Independence, Kans. Glen Lane, regional manager of exploration, has been promoted to the newly created post of assistant regional general manager. R. M. Barnes, geologist, becomes regional manager of explorations. James E. Anderson, assistant geologist, has been elevated to regional geologist. Rufus M. Smith becomes assistant to the regional geologist, a newly created post.

M. A. (Tony) Mattes, advertising manager for Standard of California, was the principal speaker at the meeting of the Hollywood Ad Club at Hollywood Roosevelt Hotel.

Shell Development Company has announced the election of Dr. T. W. Evans and John W. Pegg as vice presidents at a meeting of the board of directors in Emeryville. Dr. Evans is a director of research at Emeryville laboratories and Mr. Pegg is manager of the New York office.

Standard of California announces it has posted a $5000 reward for the discovery of a private plane which disappeared some weeks ago near Williams with four persons aboard. The craft was flown by William V. Hanley, Berkeley, assistant manager of Standard's aviation division.

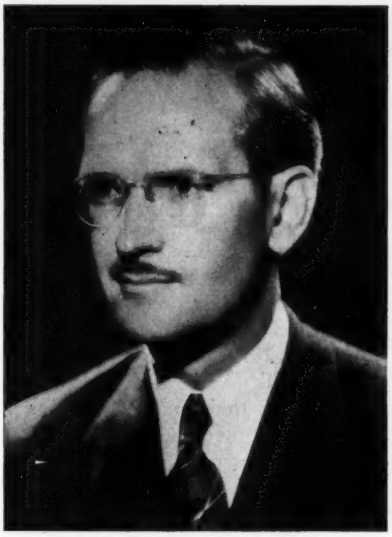
Oilmen glimpsed at the Hollywood Turf Club viewing the Sunset Handicap included Claire Gibson, Art Fisher, Russ Havenstrite, Loren Hillman and many others.

A. H. Heller, geologist, engineer and extensive Cuyama Valley landowner, is on a tour of South American cities. Before taking off for Latin America, he spent some weeks at the Waldorf-Astoria in New York City.

Hugh Story is landman and L. S. Melzer in charge of the geological department in Hancock Oil of California's new division office in Midland, Tex. Melzer formerly was with Stanolind Oil's district geological department. Ray Preece is Hancock division manager. The California organization is preparing a New Mexico and West Texas drilling program.

Widely known by California oilmen, James E. Shelton, president of the American Bankers Association and of the Security-First National Bank of Los Angeles, spoke at the annual meeting of the Institute of Life Insurance at New York. Shelton told the institute, which is the public relations arm of the life insurance industry, that the American people have been led down the road to ultimate economic and political enslavement.

Albert LeRoy Ellsworth, chairman of the board of directors of the British American Oil Company, Ltd. died after a long illness. He was 74. Ellsworth founded the company in 1906, which developed ino Canada's largest independent oil company, with operations extending to California and other parts of the United States.



DON HALL completes eight years as sales manager for McCullough Tool Company in Bakersfield, and his resignation was effective November 30. Hall will be sales manager for STRATA-CRETE and STRATA-SEAL Division of Great Lakes Carbon Corporation, according to Manager R. M. COOK, of the same division for domestic and foreign sales. Hall will introduce these products to the oil industry in California, Nevada, Utah, Colorado, and New Mexico. Mrs. Don Hall will travel with him. Their two children, a boy and girl reaching their majority, will remain in Bakersfield for an indefinite time.

Jake L. Hamon of Dallas, Tex., widely known independent oil operator, was elected to a full term as president of the Mid-Continent Oil & Gas Association at the group's annual meeting of directors in Tulsa, Okla. Hamon has been serving as president since the resignation recently of Frank M. Porter, Oklahoma City. Porter resigned following his election as president of the American Petroleum Institute.

Friends in the Kern division of Southern California Gas Company were saddened by the death of L. A. Peahl, who passed away in Coalinga. He was an employee of the gas company for 16 years and at the time of his death was in the transmission department.

Bill Green, popular member of the Los Angeles oil fraternity, told friends he was 71 years of age on December 18. He was born in Washington County, Miss. He said that his only schooling was in the Choctaw Nation, Indian Territory, later the state of Oklahoma.

Helmut W. Geyer has resigned as utilization engineer for Southern Counties Gas Company at Los Angeles to take an appointment as director of the West Coast research and development laboratory Grayson Controls division, Robertshaw-Fulton Controls Company.

The University of Edinburgh's Senatus Academicus elected Dr. Gustav Egloff, Universal Oil Products Company, to give the biennial "Romanes Lecture in Chemistry for 1951." Dr. Egloff, who is vice-president of the Third World Petroleum Congress, will attend the Third Congress in the Hague, May 28 to June 6, 1951. At that time he will lecture on "Polymerization of Olefinic Hydrocarbons."

A. J. Lowrey has been elected president of the San Francisco Chamber of Commerce. He is assistant to the president of Union Oil Company and chairman of the North California Oil Information Committee.

"Use of the K-Monel Drill Collar in Directional Drilling" was the topic of a speech delivered by Roy Mahan, general manager of Servco Company, at the meeting of the AIME junior group, Pacific petroleum chapter, at the Rio Hondo Country Club, Downey.

Calvin T. Thomas, General Petroleum, was a principal speaker at the meeting of the Southern California section, Society of Automotive Engineers, at the Rodger Young Auditorium in Los Angeles.

The recent meeting of the Pacific section, American Association of Petroleum Geologists, was highlighted by speeches by Harry R. Feder and Milton E. Loy. Feder, geologist for Chanslor-Canfield Midway Oil Company, discussed "Report of First Field Conference of the New Mexico Society, November 1950." Loy, Schlumberger Well Surveying Corporation, touched upon "Micrologging and Its Application in California. Frank Carter, General Petroleum Corporation, is president of the section. The meeting was held in the Edison Building Auditorium, Los Angeles.

Dr. Chester Stock, 58, California Institute Technology professor of paleontology and newly elected president of the Geological Society of America, was found dead in his bed at his Pasadena residence by members of his family. Famed for his research in the Southern California area, his death was attributed to a heart attack. Dr. Stock was chief curator of science at the Los Angeles County Museum and a research associate of the Carnegie Institution of Washington His work with the County museum included study and identification of various anamila fossil remains in the Ranch La Brea tar pits on the west side of Los Angeles. He discovered many caves in New Mexico, Nevada and the Grand Canyon with evidences from which he concluded man first appeared in the Southwest from 10,000 to 15,000 years ago.

Thomas P. Pike Drilling Company reported that drilling had reached a depth of 6600 ft. in its contract job with E. W. Pauley on an exploratory well in the state of Tamaulipas, Mexico. This is the first well on a program scheduled by Pauley for the area. Joe Smith, pusher, is in charge of operations. Among other current California Pike jobs are the Walker & Pray Niedver No. 2 at Coalinga, Long Beach Oil Development's No. W-73 at Long Beach Harbor, Shell Oil's deep test on the Irvine Ranch near Newport Beach, and Standard-Navy's No. 347-31S and No. 348-25R at Elk Hills.

Drilling contractors everywhere displayed interest in the plan given by the Petroleum Administration for Defense to the National Production Authority for alleviating the shortage of oil field steel supplies. Deputy Petroleum Administrator Bruce K. Brown said the plans entail steel mills making tubular and casing items to set aside up to five per cent of their monthly production. Mills are now fabricating about 150,000 tons a month over the country for emergency use. The Federal official said companies needing this equipment for important defense measures or civilian requirements would be allowed to draw from this reserve. However, this would only hold true if companies were unable to obtain equipment through regular distribution channels. Brown further explained that companies receiving equipment would have to make use of it within 30 days or it would be released to other consumers. Companies desiring to draw upon the reserve would first have to file application with the PAD for authority to make such a move. An exception would be made for operating organizations using the equipment for wells in the wildcat class. The exploration companies would be able to go directly to mills and scoop into the emergency reserve. To take such action companies would have to submit a purchase order detailing the purpose for which the items were needed and to be used.

Safety Message Carried by Picture

"And Then There Were Four," a motion picture sponsored by General Petroleum Corporation, carries a traffic safety message worth remembering. It is receiving remarkable acceptance by school authorities, civic and social organizations and with managers of conventional motion picture theaters.

For several years traffic safety has been one of the company's chief projects. The company's program in this direction recently won an award from the Los Angeles Chamber of Commerce.

General's safety education program was initiated with the distribution of more than 1,000,000 copies of a company booklet entitled "Young Pilots." It was designed as a first lesson in safe driving for boys and girls of junior high school age and which has been widely used in the schools and traffic courts of the Western states.

The whole program is an example of good citizenship which General feels all should be interested in promoting.

Geepee Adds Torrance Unit

General Petroleum has added a new catalytic polymerization unit to its Torrance refinery. It will provide about 700 barrels of high grade blending stocks each day for use in the refinery's output of motor gasoline. It is fed with an admixture of two hydrocarbon gases, propane and propylene. These gases are by-products of all refinery cracking operations and are separated from both heavier and lighter material in the refinery's central gas processing plant. The new polymerization unit was built by the Lummus Company and represents an investment of over $400,000. It is now operating.

New distribution plans in view of the growing demand for the new White 3000 were discussed at the recent Pacific Coast regional meeting of the Factory-Distributor Council of the White Motor Company. The group, which met at White's San Francisco Branch, included: Austin B. McCoy, Vancouver, Washington; M. A. Lindner, Salt Lake City, Utah; Joe Abrew, Oakland, California; Wilson D. Patterson, Pacific Coast Regional Manager; Frank Sawyer, Long Beach, California, and A. G. Strecker, Spokane, Washington. Patterson and Sawyer, co-chairmen, will present the council's recommendations at the national meeting to be held at the White Motor Company's main plant in Cleveland, Ohio.

The Santa Maria Chamber of Commerce is in the forefront of a move to change or realign the location of heavily traveled highway No. 166 from Santa Maria to Cuyama Valley. Richfield Oil Corporation is prominent in support of the proposal. Frank A. Morgan, vice president of the company wrote to the Santa Barbara County on the subject as follows: "The alignment of the present highway 166 with its sharp turns and narrow roadway constitutes a serious hazard, particularly in view of the increasing truck traffic which has grown up with the agricultural and oil development in the last several years."

Wally Curtis, guiding genius of advertising and public relations for General Petroleum, has returned to his desk in the Geepee Building at Los Angeles from a richly deserved vacation. The company's public relations program is viewed by the press everywhere as superlative and one that enjoys the admiration of oil and other industries throughout the nation.

Dave Kilgour and Dick Sneddon were among those on hand to celebrate St. Andrews Day, Scottish National Day, at the Deauville club in Santa Monica. Both oilmen first saw the light of day in bonnie Scotland.

Dr. Kenneth Emery, associate professor of geology, University of Southern California, addressed a luncheon meeting of the Pacific section, American Association of Petroleum Geologists, at Rodger Young Auditorium, Los Angeles. His subject was "High Lights of Mid-Pacific Expedition of Scripps Institute of Oceanography and the U. S. Navy Electronics Laboratory."

W. Ross Cabeen & Associates has opened new offices at 12426½ Ventura boulevard in North Hollywood. Former headquarters were at 10940 Ventura boulevard.

J. Paul Magee, Ohio Oil; S. A. Bradfield, Southern California Gas; and Ernest Kartinen, Signal Oil & Gas were speakers at the recent meeting of the San Joaquin Valley chapter of the American Petroleum Institute at Taft.

A. G. Wolf, senior engineer, Texas Gulf Sulphur Company, Houston, Tex., discussed The Gulf Coast Sulphur Industry" at a meeting of the mining branch, Southern California section of the American Institute of Mining and Metallurgical Engineers at General Petroleum Auditorium, Los Angeles.

Dr. Sam J. Yuster, professor of petroleum engineering at the University of California, spoke to the Petroleum Engineering Seminar group at Taft High School, Taft. His topic was "Relative Permeability."

Past Presidents of the California Natural Gasoline Association in Attendance at the 25th Annual Meeting.

BACK ROW: P. S. Magruder, Gen. Pet. Corp.; R. S. Tulin, Shell Oil Co.; F. J. Colton, Tide Water Associated Oil Co.; R. D. Gibbs, Union Oil Co.; M. L. Arnold, Richfield Oil Corp. and Gen. Chairman of Fall Meeting; L. V. Cassaday, Lomita Gasoline Co.; H. R. Linhoff, Richfield Oil Corp.; J. B. Taylor, Signal Oil & Gas Co.; C. D. Gard, Union Oil Co.; W. W. Robinson, Jr., The Texas Co.; Wm. A. Kirk, California Southern Oil Co.

FRONT ROW: T. L. Taggart, Standard Oil Co.; H. L. Eggleston, Analyst; R. E. Beckley, Standard Oil Co.; R. W. Heath, Signal Oil & Gas Co.; Paul Barton, Sun Oil Co.; N. H. Mull, The Texas Co.; and M. W. Kibre, General Petroleum Corp. Past Presidents absent: George Ratcliffe, Baroid Sales; R. W. Garman, State of California; O. C. Field, Retired; R. C. Wheeler, Deceased; J. C. Burks and W. C. Dayhuff, ARAMCO.

With Drilling Contractors

Because of the recent passing of an ordinance by the Los Angeles County Board of Supervisors well drilling will be allowed without public hearings in both light industrial and heavy manufacturing areas. By an amendment to zoning regulations, the board provided conditionally that operators may drill in M-1 and A-2 regions. Special requirements must be met to drill in these zones.

Thomas P. Pike, president of Pike Drilling Company, Los Angeles, was a principal speaker at the third annual conference of the Council of Profit Sharing Industries at Cincinnati. The Council of Profit Sharing Industries is an association of more than 300 companies interested in furthering the objectives of profit sharing as a means of preserving our American system of freedom in enterprise. Pike, a Council trustee, said: "One definite answer to the spread of communism lies in profit sharing systems which give workers incentives to team up with management to increase production, lower prices to the consumer, and benefit all concerned." Senator Robert Taft, Republican of Ohio, also spoke at the meeting. He concluded that "In these times of world conflict, profit sharing can play a substantial part in spreading liberty aggressively throughout the world."

"Delayed Fish" is the title of an interesting yarn in the current issue of The Beacon, published by Ohio Oil Company each month for its employees and subsidiaries. A well drilled way back in 1908 near Oblong, Ill., was singled out for reconditioning. While the well was being cleaned out metal was encountered and the drill on the Bucyrus spudder was driven to 15 ft. below the obstruction. Shooter then was called in and a shot of 60 quarts of nitro was placed. When the time bomb went off, spectators were surprised to see along with water, oil and sand a set of tools materialize and soar no less than 500 ft. skyward. The tools then dropped to earth 310 ft. from the rig. Tools were made up of a 6-in. rope socket and sub and jars weighing several hundred pounds. They were evidently lost and left in the well when the well was first drilled 42 years ago. Box and pins on the tools are of a pattern long discontinued.

K. L. Kellogg & Sons, contractor, has completed Shell Oil Company's Taylor No. 322 on Sec. 21-3n-23w in the Ventura Avenue field for 770 barrels a day through a 14/64-in. bean. The well was bottomed at 11,540 ft. The contractor is busy with drilling jobs in all sectors of the state.

Brown Drilling Company has clicked again. By drilling Texas Company's Honor Rancho NCT-One No. 2 on Sec. 1-4n-17w the contractor is identified with a new and important zone discovery. The project went to 6642 ft. before plugged back to 6530 ft. The Brown banner flies over drilling jobs throughout California and all over the world.

Pioneer Drilling Company is contractor drilling Jergins Oil Company's Hillside No. 1 in the Sisar-Silverthread area of Ventura County.

Contract has been assigned to Loffland Bros. to drill Humble Oil and Refining Company and British American Oil Producing Company's new job at Castaic Creek. The well, N. L. & F. No. C-1, is working in Sec. 1-4n-17w. Loffland's tools are active in many areas.

Severns Drilling Company is about at completion depth with its contract job, Union Oil's KCL No. 58-13 on Sec. 13-30s-26e in the Gosford field.

Drilling contract has been awarded to Gene Reid Drilling Company on The Trico Oil & Gas Company and Independent Exploration Company Raub Comm. No. 1 test, southeast of the Richfield discovery at Edison Groves.

Sunray Oil's RSF No. 93-5 on Sec. 35-4n-17w in the Newhall-Potrero field has been finaled at a plugged depth of 8797 ft. by the San Joaquin Drilling Company. Yield last reported was 870 barrels of 38.4 gravity oil daily through a 25/64-in. orifice. Gas output was at the rate of 1,467,000 cubic ft. a day. Total bottom is 8959 ft.

With the Tracy Harkness Drilling Company in charge of operations, L. O. Tarrant's Zuver No. 1 on Sec. 18-30s-29e is apparently a new pool finder in the Mountain View area. The discovery was scored in the Jeppi zone which was topped at 4153 ft. An accurate gauge of the well's capacity to produce was not available at this writing.

Shamrock Drilling Company, contractor, is moving rapidly ahead to a conclusive depth with the Ohio Oil Company E. C. Cozart No. 1 wildcat well in the Pond area of Kern County.

Texas Company's new Weedpatch No. 1 producer at West Edison was drilled to successful conclusion by Tine Gaiser. Bottom is 4015 ft.

Buaas Drilling Company is guiding the drilling destiny of Ohio Oil Company's Fred Porter No. 1 at Bitterwater Creek, San Luis Obispo County.

Field Development

Los Angeles Basin

Seal Beach Test Looms

Having found new oil pool in the Seal Beach area, J. I. M. Petroleum Company is understood giving consideration to a deeper try. The company's first well, Freeman No. 1 on Sec. 3-5s-12, is putting out 220 barrels of oil daily from 5836 ft.

Corona Del Mar Wildcat Started

Nearing the spudding stage is Shell Oil Company's Irvine Four No. 51-130 wildcat on the Irvine Ranch near Corona Del Mar on Sec. 5-7s-9w. It probably will go to a minimum depth of 12,000 ft. Shell's Irvine Ranch One No. 166-1 on Sec. 11-7s-9w in the San Joaquin Hills is drilling at 5785 ft. South of the city of Anaheim, Patrick A. Doheny's Holsinger No. 1 test on Sec. 22-4s-10w is working toward completion. The project has shown heavy oil and some water. So far it has definitely been a teaser and may be a marginal affair. Coming events will tell the true story. The Orange County Planning Commission has approved a conditional permit to Sea View Oil Company to sink a well on the northeast corner of Los Palos avenue and Davis street at Sunset Heights. The company plans to use a portable outfit and agreed to remove the rig immediately upon completion of the well.

Chino Hills Well Pumping

In the Chino Hills of San Bernardino County, Pacific State Properties' No. 1 well is pumping several barrels of 23 gravity oil a day from 1787 ft. The L. H. Cameron No. M-2 on the section is testing at a plugged depth of 1404 ft., after setting casing at 1156 ft. Total bottom is 1765 ft. At Colton, John W. Brashears is drilling at 1800 ft. with Dana No. 1 on Sec. 26-1s-5w. Near Hesperia, Allied Petroleum Corporation's Chief No. 1 on Sec. 17-4n-1w is idle around 1900 ft.

Placentia Lease Taken

Chieftain Oil Company of Texas has leased the 80-acre C. C. Wagner citrus property on Yorba Linda boulevard east of Valencia avenue near Placentia. It plans to start drilling a well in the area in a few months, or after other leases are acquired there. Shell Oil holds adjacent leases north of Yorba Linda boulevard and west of Valencia avenue. Ralph Arnold is geologist for Chieftain Oil Company.

Bartholomaus Wildcat Drills

In Bartholomaus Canyon, W. W. Bush continues to dig deeper with Bush Bar No. 1 on Sec. 6-2n-14w, Los Angeles County. Depth last reported was 1580 ft.

Beach Well Pumping Oil

Atlantic Oil Company's new well in the town lot area of Huntington Beach at last reports was pumping at the rate of 58 barrels of 21 gravity oil daily, cutting 48 per cent. The well is known as Miller & Ford No. 7 and is on Sec. 10-6s-11w. It went to 3946 ft., before plugging back to 3819 ft. Rogers & O'Meara are understood planning a well to the same zone.

Calabasas Try Staked

F. G. Anderson has staked location for Mabel No. 1 test on the southeast corner of Sec. 21-1n-18w in the Calabasas area, Los Angeles County. At Chatsworth, Coast Exploration Company's Coast-Neaves-Dotta No. 1 on Sec. 19-2n-16w exploratory venture has been given up at 2938 ft. in base-

General Petroleum Corporation's well Santa Fe No. 178-C in the Santa Fe Springs Field. left to right: Jack Glover, helper; Ollie Pugh, helper; P. R. Walker, head well puller; Dave Reed, helper.

JEL-OIL

JEL-OIL EMULSION MUD PROVIDES

Low Water Loss
Low Surface Tension
Excellent Lubrication

A filtrate which decreases water block and Bentonite swelling in producing formations.

BROWN MUD COMPANY

COMPLETE DRILLING MUD SERVICE

AUTHORIZED MAGCOBAR DEALER
DAY and NIGHT SERVICE

MAIN OFFICE
4606 W. 18th St.
LOS ANGELES 19, CALIF.
YORK 7494 — WY 6133

VENTURA Miller 3-8168

BAKERSFIELD 2-6410

ment. Only slight showings were picked up to bottom.

Whittier Test Slated

General Petroleum is rigging its Kruse No. 1 wildcat on Sec. 8-2s-11w in the Whittier Narrows area of Los Angeles County. In the La Mirada area, the company's McNally No. 1 is coring at 11,600 ft. on Sec. 22-3s-11w. In the Dominguez area, D. D. and Dorothy Dunlap's Del Amo-Bell No. 1 test on Sec. 5-4s-13w is making hole at 4275 ft. At Mint Canyon, D.J.R. Oil Company is ready to deepen from 2418 ft. the U.S.D. Oil Company Wright-Kovaleski No. 1 on Sec. 17-5n-14w.

Richfield Well Starts

Colonel D. D. Stewart, a comparative newcomer to the California producing industry, is starting a Richfield outpost project on Sec. 28-3s-9w. The operator maintains headquarters for his eastern and southern business activities at Lexington, Ky. His interests include the Lexington Railway System, Inc., Kentucky River Mills, Inc., Kentucky Home Coal Company, Stewart Coal and Oil Company and Blue Grass Minerals, Inc.

Del Valle Try Spuds

Spudded and drilling in the shallower formations is the Pacific Western Encinas Fee No. 1 test on Sec. 2-4n-17w in the Del Valle area. In Sec. 16-4n-17w, Trigood Oil Company's Barbour No. 2 is drilling below 6800 ft. A formation trial of the interval of 6599-6684 ft. showed some oil and gas.

Towsley Well Putting Out Oil

Production last reported from the Sana Paula Drilling & Development Company Foster No. 1 on Sec. 17-3n-16w was 28 barrels a day, cutting somewhat heavily. Total bottom is 3519 ft. and plugged depth 1650 ft.

Loma Verde Test Drills

Prospect drilling is going forward at 7205 ft. in Superior Oil's Romero No. 51-28 on Sec. 28-5n-17w in the Loma Verde area of Los Angeles County.

West Newport Adds Producers

West Newport in Orange County has added two new producing wells. D. D. and Dorothy Dunlap have completed Aldrich Land Company No. 14 on Sec. 18-6s-10w for 130 barrels of oil and 75,000 cubic ft. of gas daily. The well is bottomed at 4920 ft. Standard of California finaled its McLeod No. 4 on Sec. 18-6s-10w at 5510 ft. for 40 barrels, cutting 44 per cent initially.

Newhall Wells Dig

In the Newhall-Potrero field, General Exploration Company of California as this is written was digging away at 6950 ft. in its Ferguson No. 9 on Sec. 31-4n-16w. Sunray Oil's NCW No. 4-5 on Sec. 25-4n-17w continues to poke deeper at 9823 ft.

Santa Fe Well Drills

In the Santa Fe Springs field, St. Anthony Oil Corporation's St. Anthony-Farwell No. 7 on Sec. 32-2s-11w still drills deeper without interruption at a depth last reported near 1500 ft. The company recently scored with its St. Anthony-Laing No. 1 in the section for 185 barrels a day from 4576 ft.

Corona Try Stands Idle

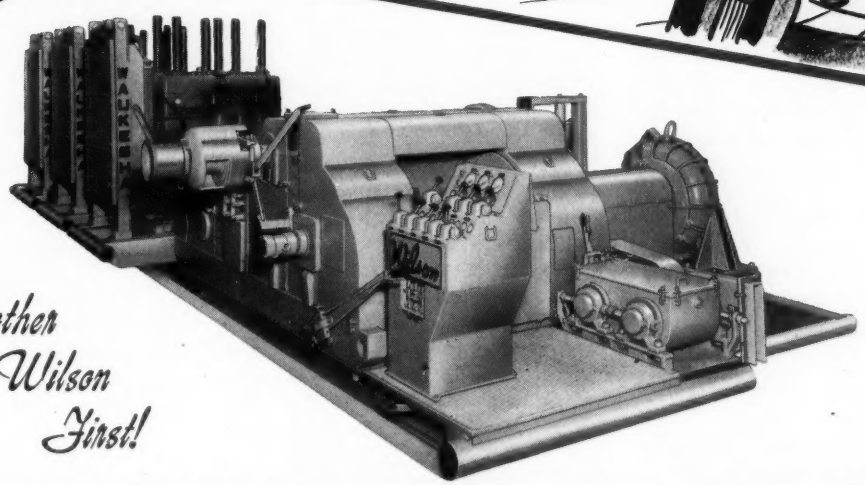
Idle at 1040 ft. is the present stage of V. O. D. Oil Company's Berghofer No. 1 on Sec. 29-4s-6w in the Corona area of Riverside County.

Torrance Adds Well

Del Amo Estate Company's No. 24, an old well on Sec. 16-4s-14w in the Torrance field, was redrilled to 3610 ft. and completed on the pump for 23 barrels of 15.5 gravity oil daily. Original bottom was 3665 ft. Standard of California is drilling near 5000 ft. with its Marble Fee No. 41 on Sec. 15-4s-14w, following completion of a fishing job.

Placerita Well Good

Fifty barrels of oil daily is what Standard of California obtained in drilling its Placerita No. 11 in the Placerita field to a bottom of 1285 ft. The 9-in. casing is set at 925 ft.



Another Wilson First!

The all new WILSON TORCAIR-ROADAIR RIG — the world's first rig to be designed for TORQUE CONVERTER DRIVE OR DIRECT ENGINE DRIVE. Completely new — from front to rear. It can be transported in one unit, or can be broken down into several smaller units. It contains Wilson Air-Tube Disc Clutches throughout, Full Pressure Water Cooled Brakes, and many other outstanding features, including the sensational Wilson Sectional Box Type Compound. The only rig with four Air Clutch Speeds on the Drum that can be changed while running — and under any load.

COMPARE PRICES BEFORE YOU BUY!

SERVICE • • • • SALES

POWER RIG EQUIPMENT

POWER RIG & EQUIPMENT CO., INC.

5141 Anaheim-Telegraph Road • Los Angeles 22, California

EXCLUSIVE WEST COAST DISTRIBUTOR OF WILSON MANUFACTURING COMPANY, INC.

Johnston Stainless Welding Rods

PROVEN QUALITY SINCE 1931

•

A. P. JOHNSTON

1845 E. 57th St. - Los Angeles 11, Calif.

Aliso Canyon Job Digs Ahead

On Sec. 34-3n-16w in the Aliso Canyon field, Carlton Beal's Mission-Adrian No. 3 is making hole ahead below 2250 ft. Standard Oil has finaled its Mary L. Orcutt No. 1 on Sec. 28-3n-16w for a yield yet to be accurately evaluated from a plugged bottom at 7200 ft. Tide Water Associated is about to spud its Porter No. 50 on Sec. 27-3n-16w. The company is rigging Fernando No. 12.

East Coyote Well Pumping

Pumping an estimated 80 barrels daily, Bartholomae Corporation has given the final touch to its Stern No. 21 on Sec. 22-3s-10w in the East Coyote field, Orange County. Total depth is 6105 ft.

Castaic Test Rigging Derrick

Humble Oil & Refining and British American Oil Producing are rigging to start the drill in their joint N. L. & F. No. C-1 well on Sec. 1-4n-17w in the Castaic Creek area. Drill site is about a half mile due west of Texas Company's Honor Ranch No. 2. Humble's N. L. & F. No. 3 on Sec. 24-4n-17w at Castaic Junction has been completed at 10,115 ft. for an initial yield of 280 barrels of 22.2 gravity oil daily. N. L. & F. No. 4 is rigging up on Sec. 19-4n-16w. The company's N. L. & F. No. B-1 on Sec. 12-4n-17w in the Oak Canyon area is drilling at 840 ft. Texas Company's Honor Ranch NCT-One No. 2 on Sec. 1-4n-17w at Castaic at this writing has a water problem of some sort. Output at last reports was 116 barrels of net oil and 77 barrels of water from a plugged depth of 6530 ft. The well, located west of the pool opener, was completed from a zone deeper than in No. 1. This higher zone was absent in No. 2 well. Location for a third well probably awaits study due to complex geology in the area but it probably will go down in a southeast direction. Developments at Castaic in the near future are likely to include the initiation of a joint drilling job by Boisa Chica Oil Corporation and Texaco on their 5000-acre spread. The land is two or three miles north of the Honor Ranch and it is understood to already have undergone geophysical scrutiny. Union, Standard and Humble hold ground in the area generally. The area was the scene of some excitement months ago when T. & M. Exploration Company drilled a well and encountered showings of high gravity oil. As a sequel, Bolsa Chica drilled a test, which failed of its purpose because of possible structural displacement. South of the Montebello field, Texaco is rigging its Shofner No. 1 wildcat on Sec. 6-2s-11w.

Cuyama Valley Still Active

C. A. Pearson of Taft and Ralph M. Steffen of North Hollywood as this is written were coring at 2500 ft. with Travers No. 81-9 on Sec. 9-11n-28w in a sector yet to be proved northwest of the Morales sector in Cuyama Valley. Location is on a 40-acre parcel originally leased from the Federal Government by the late J. W. Travers. Acreage holders in the area include Southern California Petroleum, General Petroleum and Richfield Oil. In the Northwest Cuyama Valley area, Universal Consolidated has abandoned its Humble No. 55-31 on Sec. 31-32s-20e at a redrilled depth of 5201 ft. Original bottom was 5444 ft. Southern California is resuming drilling operations in the Morales sector.

This was indicated when the company staked Shlaudeman No. 9-10 on Sec. 10-11n-28w.

Union Adds Texas Well

Union Oil of California has completed a third well producing in the field the company opened up not long ago in Terry County, Tex. The new well is Stitt No. 1. It flowed on potential test at the rate of more than 1900 barrels daily of 44 gravity crude oil. The flow tapped 42 ft. of zone uncovered at 10,100 ft. In the same field, Union in company with Honolulu Oil have tested successfully what will constitute the fourth well in the field. This combination job, McGowan No. 1, went on trial for 72 barrels an hour of 44 gravity crude oil. Casing has been set and as this was set down the project was in the completion stage. Union and Honolulu are understood ready to drill one more test with completion of this well.

San Joaquin Valley

Pond Test Drills Ahead

In the Pond sector of Kern County, Ohio Oil Company at last reports was digging with its interesting No. 1 test on the E. C. Cozart lease at 3360 ft. The well is on Sec. 31-25s-25e and about eight miles from the Trico gas area. No tests have been drilled in the immediate area, except for one sponsored by Tide Water Associated. This earlier try drilled in Sec. 17-26s-25e and quit at 9190 ft. At Elk Hills, Standard Oil's UONPR No. X55-30e is drilling on down at 7745 ft. in a hunt for deep production.

San Emidio Test Fails

On the San Emidio Ranch in San Joaquin Valley, Steele Petroleum Company has abandoned KCL No. 41-23 on Sec. 23-10n-22w. The project went to a total depth of 850 ft. in hard basement, after topping weathered basement at 750 ft. South of the Edison field proper, Texas Company's Weedpatch No. 1 on Sec. 28-30s-29e is pumping about 50 barrels of 19 gravity oil a day, cutting rather heavily on initial output.

Mount Poso Well Re-Works

Yellowstone Oil Company has taken over a well abandoned in the Dominion sector of the Mount Poso field and will attempt to work the project over and develop production. The well is Dumm Brothers-Salisbury No. 1 on Sec. 17-26s-28e, which originally flew the banner of Dumm Brothers of Long Beach in going to a total depth of 1450 ft. about a year ago.

Santos Creek Venture Rigs

Independent Exploration is rigging to begin drilling its Santos No. 1 exploratory project on Sec. 32-28s-20e near Santos Creek in Kern County. The drill site is 1720 ft. south and 400 ft. east from the company's Anderson No. 2-29, which was given up two years ago at 3080 ft., after finding the Oceanic sand missing at that location. One mile south and two miles east of Arvin production, Gene Reid Drilling, Inc., is making hole ahead below 3100 ft. with Woodworth No. 2630 on Sec. 30-31s-30e. Two locations south and east, Ed Gieck carried the Woodworth No. 1 to 5185 ft., and obtained sub-commercial shows.

Wasco Well Starts Tests

On the Mushrush Ranch five miles west of Wasco, Standard of California has begun conventional tests with its No. 2 well on Sec. 7-27s-24e. The well is down 15,550 ft. and apparently it cored oil sand from about 15,350 ft. at intervals. It is bottomed in formation of Eocene age. In the Estrella area of San Luis Obispo County, Standard has staked Cleary-Hillman No. 44-8 on Sec. 8-25s-14e.

Carrizo Try Quits

Near the Caliente Range on the Carrizo Plains, D. & D. Oil Company has pulled out of its No. 1 test on Sec. 6-11n-26w, San Luis Obispo County. The project went to 1925 ft. Electric log was run. Warren L. Meeker & Associates also have given up H. C. Smith No. 1, a wildcat on Sec. 15-11n-26w. At Bitterwater Creek, Ohio Oil's Fred Porter No. 1 test on Sec. 30-11n-24w is digging rapidly ahead at 1760 ft. Other than depth, C. W. Colgrove's Jack No. 17-16 at Cholame on Sec. 16-25s-16e is in the no dope category. The well evidently has reached 1850 ft. and going on deeper. Superior Oil's Grayson-Owens No. 14-13 on Sec. 13-31s-18e was down at last reports 3910 ft.

Tunis Creek Test Drills

Standard of California's Tejon No. 3 No. 62-32 on Sec. 32-11n-18w at Tunis Creek is drilling below 1200 ft. Reserve Oil & Gas Company has location staked for Core Hole No. 25 on Sec. 28-11n-18w. Five and one-half miles west of Tejon Hills production, Sunray Oil Corporation is about ready to start work on its Tejon Ranch No. 14-14 on Sec. 14-11n-19w. At Tejon Hills, Cliff E. Zillgitt's No. HW 1 on Sec. 10-11n-18w is drilling at 430 ft. The project is credited with hitting a shallow sand at 390 ft. At East Tejon Hills, the operator has location made for No. K 2 on Sec. 14-11n-18w. On Sec. 13-11n-18w, Tejon Basin Oil Company, a Nevada Corporation, plans a test well. It will prospect about a mile and one-half east of Steele Petroleum's ground. The company is headed by J. H. McCue. Larry Johnson is vice president and A. J. McCue, secretary-treasurer.

Stern Corral Wildcat Digs

In the Stern Corral area near Media Creek in Kern County, E. T. Willard is digging ahead below 1100 ft. with Wright No. 1 test on Sec. 23-28s-19e. At Devils Den, Stephen C. Ward is engaged in cleanout operations with the Kalloch No. 1 on Sec. 11-25s-18e. Present depth of the hole is 3100 ft.

In the Signal Hill field on Davis Investment Co.'s Painted Hills #2 Well. (l. to r.): C. F. Moore, Head Well Puller; G. H. Van Sant, Floorman; E. J. Lyndes, Floorman; and A. L. Cole, Floorman.

Reef Ridge Venture Digs

At Reef Ridge in Kings County Sunray Oil Corporation's Lynch-Mauren No. 68-9 continues to slug away at 9415 ft. on Sec. 9-23s-17e. In the Pyramid Hills, General Production Company's No. 4 on Sec. 8-24s-18e is drilling at 824 ft.

Mtn. View Test Slated

North of the Mountain View field, Havenstrite Oil Company is commencing work on its wildcat well on Sec. 2-30s-28e. In the Ant Hill area, Trico Oil & Gas Corporation and State Exploration Company has joined to drill Raub Comm. No. 1 on Sec. 33-29s-29e. It is 1400 ft. southeast of Richfield's discovery at Edison Groves.

Sargent Test Ready

Ready to begin operations is the Jack Herley O'Connell No. 3 test on Sec. 4-12s-4e at Sargent in San Benito County. Location is on the Fenton O'Connell ranch, where Herley's No. 1 well is pumping a small quantity of crude oil and where No. 2 was abandoned at around 3580 ft. Thin sands predominated at location of No. 2, with oil showing. At East Lonoak, Texas Company's Eade NCT-One No. 1 on Sec. 12-19s-10e is coring and drilling ahead at 5520 ft.

Gould Hills Wildcat Digs

Union Oil and Independent Exploration's Richardson No. 81-18 wildcat well on Sec. 18-29s-21e in the Gould Hills of Kern County is drilling on down at 2347 ft. The project is scheduled to test the Carneros zone which is anticipated between 6500 and 7000 ft.

Huron Try Suspended

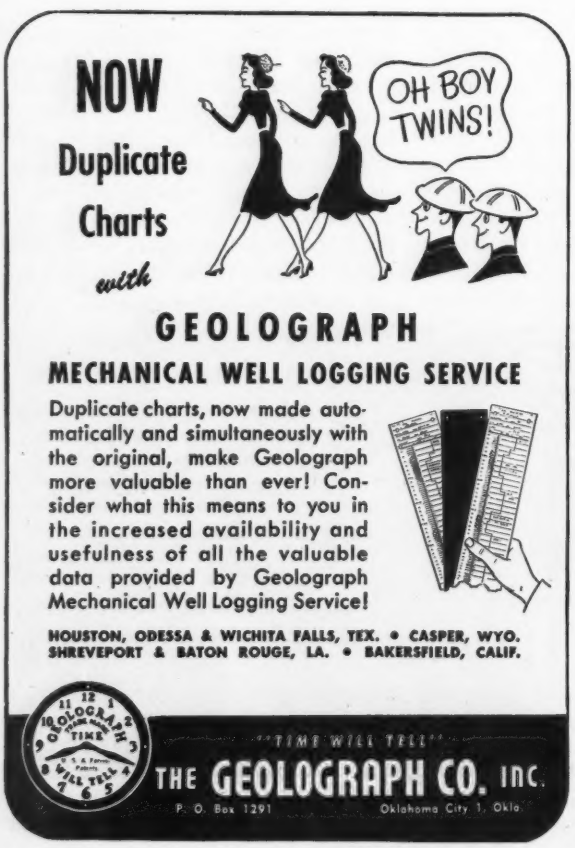
General Petroleum has suspended drilling operations in its No. 44-14 wildcat well on ground of the Boston Land Company in the Huron area of Fresno County. Drilled to a total depth of 14,724 ft. on Sec. 14-20s-18e, the project was subsequently plugged back to 13,060 ft. for trials. Spudded in last March, the well gave indication during the summer of ending up as a finder of new oil, but on conventional trials failed to live up to expectations. At at any rate, showings lead to the conclusion that the area at some other location may respond with oil in commercial amounts. Southeast of the city of Fresno, Mid-Cal Oil & Gas Company's Mid-Cal-Suglian No. 1 cable tool job on Sec. 23-14s-20e is idle temporarily at 285 ft. L. M. Lockhart's England No. 1-31 on Sec. 31-14s-13e has reached 5450 ft. and is the subject of an electric log run.

Lost Hills Test Works

Drilling is going forward below 600 ft. in General Petroleum's Williamson No. 3-11 test at Lost Hills, following cementing of surface pipe at 280 ft. Drill site is on Sec. 11-26s-20e.

Castaic Try Digs

North of Castaic along the Ridge route in hte Castaic area, F. G. Walker's Mary Austin No. 1 wildcat on Sec. 28-6n-17w is drilling ahead, after setting surface pipe at 200 ft.


NOW
Duplicate
Charts
with
OH BOY TWINS!
GEOLOGRAPH
MECHANICAL WELL LOGGING SERVICE
Duplicate charts, now made automatically and simultaneously with the original, make Geologram more valuable than ever! Consider what this means to you in the increased availability and usefulness of all the valuable data provided by Geologram Mechanical Well Logging Service!
HOUSTON, ODESSA & WICHITA FALLS, TEX. • CASPER, WYO.
SHREVEPORT & BATON ROUGE, LA. • BAKERSFIELD, CALIF.
"TIME WILL TELL"
THE GEOLOGRAPH CO. INC.
P. O. Box 1291
Oklahoma City 1, Okla.

ALL OTHER FEATURES plus
TRAILER MOUNTING
BOWEN
POWERED
SWIVELS
have
• Greater Convenience
• Flexibility
• Protection
ELIMINATES
• Hand Rotation
• Fire Hazard
• Rotary Table And Auxiliary Equipment
BOWEN POWERED SWIVELS
are used for all types of light rotary operations because they eliminate the necessity of moving in kellys, rotary tables or other heavy equipment for light, short time rotary work and because they eliminate the inefficiency and even danger of rotating strings by hand.
Bown Powered Swivels are available with or without trailer mounting. Trailer mounting provides the operator with conveniences of untold value and insurance against loss or damage to parts of the assembly.
Write For Complete Information
BOWEN FISHING TOOL COMPANY
SANTA FE SPRINGS CALIFORNIA
VENTURA • BAKERSFIELD • AVENAL • SANTA MARIA
CASPER, WYOMING
Export: BOWEN CO. 30 ROCKEFELLER PLAZA, NEW YORK, N.Y.

Coastal and Northern District

Livermore Test Now Only Memory

A couple of tests only showed a little gas with the result Hancock Oil Company's Hancock-Signal-R. A. Hansen No. 1-21 wildcat in the Livermore area has gone off the board at 7235 ft. Drill site was in Sec. 21-3s-2e, Alameda County. Also a production failure was Standard Oil's Canada Comm. No. 1 on Sec. 34-2n-2e in the Antioch area, Contra Costa County. Drilled to a bottom of 2835 ft., a test of the interval of 2037-2100 ft. showed all water.

Sites Test Going Deeper

On the Sites Anticline in Colusa County, L. O. Tarrant's Neita Peterson No. 1 on Sec. 6-17n-4w is idle at 3360 ft., awaiting the installation of heavier equipment to go deeper.

Napa County Wildcat Starts

Five miles south of the town of Monticello, Western Gulf has started its F. G. Johnson No. 1 wildcat well on Sec. 28-8n-3w at Steele Canyon, Napa County. On the Manka Anticline in Solano County, Sunray Oil's Manka Comm. One No. 1 on Sec. 4-5s-2w continues to prospect deeper at 3915 ft. Northwest of Petaluma in Sonoma County, Santa Rosa Exploration Company's Stephens-Rohnert No. 1 explorer is slugging away at 2970 ft. In Tehama County, Standard of California's Orland Comm. No. 2-1 on Sec. 31-23n-2w is ready to begin work on a test of the Orland area. Buttes Oilfields, Inc. has staked Saldubehere-Buttes No. 1 at Coring on Sec. 25-24n-3w.

Lompoc Test Rigging Up

Hugh B. Martin, widely known industrialist, is rigging his Beuterbaugh No. 3 wildcat well on Sec. 18-7n-34w on ground southwest of Lompoc in Santa Barbara County. In the Foxen Canyon area, Tide Water Associated is making hole ahead at 1770 ft. with Tinaquaic No. 1 on Sec. 36-9n-32w. The last word from the Santa Goleta Petroleum Company's Santa Claus No. 1 on Sec. 10-4n-29w in the Goleta area was that bailing operations were in progress from above plug at 727 ft. Total bottom is 1766 ft.

Reyes Peak Test Works

In the rugged Reyes Peak area of Ventura County, Standard Oil's Hattie Russell No. 1 wildcat test continues to drill deeper below 3200 ft. Location is on Sec. 11-7n-23w. At Montalvo, the company is down 12,110 ft. with McGrath No. 148-12 on Sec. 26-2n-23w. However, a fishing job intervened at that point and temporarily halted drilling. Top of the fish is at 8095 ft.

Ojai Job Drills On

Ojai Oil Company's No. 9-A on Sec. 12-4n-22w in the Ojai field in Ventura County was last reported drilling at 405 ft. The company's No. 9 on the section was abandoned at 469 ft. No. 8, also on the same section, is idle at 1304 ft. At Shiells Canyon, Fullerton Oil Company's Shiells Canyon No. W-1 on Sec. 3-3n-19w is digging at 1480 ft.

Bardsdale Study Area

Bysshe and Barratt, widely known independent operators, have completed a geological study of the southern part of their Elkins lease in Sec. 7-3n-19w in the Bardsdale field. This was a prelude to selecting locations for their next two drilling jobs. The operators' Elkins No. 7 was recently completed for 225 barrels of 34.5 gravity crude oil daily. Originally headed for the pump, the well started to flow through rods and other pumping equipment.

Red Mountain Wildcat Spuds

Amerada Petroleum Corporation has spudded its R. C. No. 1 exploratory venture on Sec. 10-3n-24w in the Red Mountain sector of Ventura County. At Calabasas, LeRoy C. Gould's Palo Comado No. 1 on Sec. 14-1n-18w continues to dig at 1640 ft. In the Sisar-Silverthread area, Jergins Oil's Hillside No. 1 test on Sec. 8-4n-21w last was reported down 6550 ft. and drilling ahead. Near Piru on Sec. 5-4n-18w, O. M. Slosson has abandoned Hidden No. 3. Operations came to a halt at 3894 ft. The W. J. Johnson, Ben Elvis and H. C. Tharp Jet No. 2 test on Sec. 27-4n-21w is idle at 475 ft. Lloyd Corporation has killed its Sexton No. 2 on Sec. 19-3n-22w at Ventura Avenue and pulled liner for some remedial work.

San Miguelito Drill Job Works

Drilling has reached 8951 ft. in the Continental Oil Company Grubb No. 302 on Sec. 25-3n-24w in the San

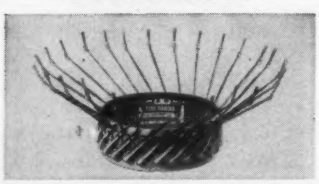
In the Santa Fe Springs field on Bandini Petroleum Co.'s Well Off 15. (l. to r.): W. J. Minnes, Head Well Puller; O. R. Cate, Floorman; and H. A. Boutwell, Floorman.

B and W
SCRATCHERS
AND
CENTRALIZERS
FOR
A GOOD CEMENT JOB

B and W LATCH-ON CENTRALIZERS

with the NEW
KON-KAVE BOW

and
B and W Multi-Flex Scratchers



are a GOOD Combination for a GOOD CEMENT JOB!

B and W Incorporated
• Well Completion Specialists •
WEST COAST — 3545 Cedar Avenue
Long Beach 7, California, Long Beach 4-8366
GULF COAST — P. O. Box 5266
Houston 12, Texas, Phone: WEntworth 6603

Miguelito field, Ventura County. Grubb No. 303 on the section is digging at 3415 ft. No. 83-2 on Sec. 30-3n-24w is down 6650 ft.

Cat Canyon Adds Producer

On its Alexander lease on Sec. 21-9n-33w in the Cat Canyon field, Standard of California has added No. 74 well at 6375 ft. for 232 barrels a day. No. 53 on the section is making hole at 5004 ft. Sunray Oil's Los Flores No. 45-21 on the section has reached a depth of 6432 ft. and fishing cones. Union Oil's Bell No. 99 is a location on Sec. 35-9n-33e. General Petroleum's White No. 32-21 on Sec. 21 is drilling at 6000 ft. Los Flores No. 75-21 on the same section is drilling at an inconclusive depth also. On Sec. 22-9n-33w, the company has completed Los Flores No. 15-22 at 6200 ft. and at present evidently is pumping all oil.

Sespe Try Runs Pipe

With present depth at 175 ft., H. A. Ivers as this was set down was ready to run pipe in No. 15 well in the Sespe area on Sec. 1-4n-20w, Ventura County.

Zaca Job Drilling

In the Zaca sector of Santa Barbara County, Tide Water Associated is poking ahead at 1690 ft. with its Luton No. 92 on Sec. 29-8n-31w. The company's program of development in the area has been highly successful.

Tepusquet Test Works

At Tepusquet in Santa Barbara County, Honolulu Oil Corporation is spot coring and drilling ahead with Rancho Suey No. 1 wildcat on Sec. 21-10n-32w.

Edison Groves Find Confirmed

Production current from Richfield Oil's Shields-Arms No. 1 a pool opener on Sec. 32-29s-29e at Edison Groves, is at the rate of 200 barrels daily. The well, about four miles east of Bakersfield, stopped for finalities at 3580 ft. The new producer is a mile and one-half northwest of the Race Track Hill field. Oil is coming from Olcese sand.

SAVINGS are PROFITS so get JENSEN!

The simple, rugged Jensen is mass-produced. You save on the initial cost.

Oilbath lubrication and Timken roller bearings in every Jensen actually require less power—a saving to you.

Design of Jensens is backed by thirty years of experience and field-testing—saves on repairs and maintenance.

When you use Jensens you not only save these three ways—you assure yourself of low operating costs and GREATER PROFITS. See your Jensen dealer today—or write us for complete details.

Stocked by

THE OIL TOOL CORPORATION
3075 Cherry Ave., Long Beach, Calif.
Phone 481-81

JENSEN
BROTHERS MFG. CO.
COFFEYVILLE, KANSAS, U.S.A.
EXPORT OFFICE: 50 Church St., New York City

Crude Fuel Prices Rise

Standard of California has increased the price it pays for crude oil, ranging from several cents a barrel to 25 cents a barrel for heavy 14 gravity oil. The company at the same time announced an increase of 20 cents a barrel in its selling price of heavy fuel oil used normally by railroads, steamships and industries. Other large purchasing companies in California have placed in effect increase similar in most respects.

Rocky Mountain NEWS

Colorado—Idaho—Montana—New Mexico—Utah—Wyoming—Western Canada

Two big lease plays in Colorado and Wyoming at the close of the year pointed up the increased tempo of exploration activity which is continuing throughout the Rocky mountain region.

More than 35,000 acres of state leases were snapped up in Weld county, northeastern Colorado, as the Julesburg Basin development gathered momentum. Several new wildcats were started in this fast growing oil province of northeast Colorado and southwestern Nebraska.

At the same time, lease brokers rounded up approximately 80,000 acres of federal and state oil leases in central Natrona county, Wyoming, scene of new discoveries and rapid development in the Glenrock, Sussex and Meadow Creek fields during the last half of the year.

The Big Horn basin in northwestern Wyoming revived rapidly in the last quarter of the year, with General Petroleum Corp. bringing in a 700 barrel well at Slick Creek on the edge of Worland, and other majors busy evaluating deep hole prospects for 1951 drilling.

This area received another shot-in-the-arm in mid-December with the surprise discovery of a Tensleep well on the arch of the Bonanza anticline east of Manderson. Dr. Victor Ziegler, geologist, and his associates tested the wildcat for 48 barrels per hour of 34 gravity green oil from the Tensleep at the relatively shallow depth of 2,528 feet. The history of the area had been a succession of failures drilled to the shallower Frontier horizon. The discovery is certain to stimulate increased drilling on known surface structures along the flanks of the Big Horn Basin.

Considerable development drilling is also in store for Big Horn Basin black oil fields, now that work has started on building the Platte Pipe Line from Worland to Casper to St, Louis, assuring better marketing facilities. Ohio Oil Co., busy in the Julesburg Basin during the past year, is reported planning 50 pool wells in Garland, Byron, Oregon Basin and other Big Horn Basin fields.

In Colorado, Mountain Fuel Supply Co. has just laid claim to the deepest well ever drilled in that state. The firm's wildcat at Hiawatha in Moffat county was reported coring below 14,127 feet and seeking its objective in Dakota sandstone, which is productive at Church Buttes field to the northwest in Sweetwater and Uinta counties, Wyoming. Some shows were reported in the higher Frontier formation.

General activity has been quiet in Utah for several months, but Standard of California tested gas and water at its Red Wash venture in Uintah county recently. Checking a zone between 4261-4294 in the Upper Green River formation, the operator gauged a gas volume of 4,335,000 cubic feet daily with 200 feet of fresh water. Drilling is going deeper.

Nevada is not being overlooked as a possible oil province, despite the recent failure of Continental's 10,311 foot test at Meridian. Standard of California has spudded another deep wildcat in the Hayden Creek area, 12 miles east of the Meridian dry hole. The well in section 17-15n-59e is scheduled to test the Eureka sandstone. Shows were reported in the earlier Nevada wildcat around 3,000 feet, but were said to be non-commercial.

Two deep tests have been abandoned in Wyoming's vast Powder River Basin, and a third 10,000 foot venture has been staked.

American Liberty Oil Co. plugged its wildcat in the Northwest Arvada area of Sheridan county at 9762 feet, after testing the Dakota zone. A. B. Cobb of Great Falls, Mont., and Superior Oil Co. abandoned the Dull Center venture in northeastern Converse county at 9667 feet in Morrison shale, after finding the Dakota sand hard and tight, with a slight show of gas. No water, gas or oil were found in the Lakota.

Meanwhile, Phillips Petroleum made location for a 10,000 foot test to Dakota sands in the Careyhurst area 10 miles east of production in the new Glenrock field. Stanolind contributed dry hole money for the test. Location of the venture follows extensive seismograph work thru the area.

In northern New Mexico, Continental Oil Co. is testing its first deep well in the Table Mesa field of San Juan county at a total depth of 7761 ft., where some saturation along with non-inflammable gas was found in the Madison. Casing was run to the bottom of the hole.

As an eventful year in the history of the Rocky mountain area drew to a close, these were some of the principal developments:

WYOMING

Sun Oil Co. stopped for a fishing job at 3696 feet at it East Bailey wildcat in Carbon county, after finding water in the Cloverly formation. Drilling will continue to the Tensleep goal at 7,000 ft.

Brinkerhoff, Jones and Anderson tested their well in the new South Glenrock field for 25 barrels oil per hour thru open tubing from the Dakota sand, topped at 5924. There were four rigs running in the new field, which has two pay horizons: Muddy and Dakota.

Sinclair completed its second well

DRISCOSE *

FOR WATER LOSS CONTROL

for further information write or call

THE WILLIAM E. SIEVERS CORPORATION

2875 CHERRY AVENUE, LONG BEACH 6, CALIF.

TELEPHONES: LONG BEACH 4-4247 AND 40-6997

Warehouse Stocks at:

AVENAL	**CUYAMA**	**VENTURA**
BAKERSFIELD	**LONG BEACH**	**WHITTIER**

California Representative for

DRILLING SPECIALTIES COMPANY

***A trademark for Sodium Carboxymethylcellulose**

in the Frontier formation at Happy Springs in Fremont county. After acidizing, the well swabbed 128 barrels of 40.7 gravity oil and 10 bbls. of drilling fluid in 23 hours. The operator is now completing No. 4 well, which made 2675 ft. of oil on a drillstem test in Frontier.

In the Clareton area of Weston county, Montegna and Chism's extension test in the Clareton area showed saturation in the Newcastle sand. Efforts to find production in deeper areas west of the Fiddler Creek field are expected to continue throughout 1951.

One of the worst tragedies in the history of drilling in Wyoming occurred at the Murchison Trust No. 5 well in the North Meadow Creek field in mid-December. A driller and three helpers employed by Keyes, Marken and Grannell, contractor at the well, were burned to death following an explosion and fire occurring during the running of a drill stem test. Three of the men were caught on the derrick floor, another on the derrick. It was thought sparks from the engine exhaust may have ignited gas fumes escaping from the tester. The 40-gravity oil burned like gasoline.

COLORADO

British-American is developing its new Yenter Pool in Logan county rapidly. The discovery well made 225 barrels oil daily from the "J" sand. B-A made locations for two additional wells in section 3-8n-54w.

J. M. Huber Corp. has discontinued development in the Lee Pool, Morgan county, after completing a second shut-in gas well. There are now two oil wells and two gas wells in the field.

Continental is preparing to abandon its Nucla wildcat in Montrose county, which has been in granitic material most of the way.

Cities Service found the Weber (Tensleep) sand at 5602 ft. at the Beaver Creek wildcat in Moffat county. Drillstem tests made only small amounts of mud.

MONTANA

General Petroleum topped the Devonian at 3053 ft. at its venture in the Bootlegger Area, Choteau county. A test in the Madison lime below 2017 ft. recovered sulfur water, with a trace of oil.

Carter is drilling its Coyote Springs wildcat in Glacier county around 1,000 ft., with the objective in Madison at 3500.

Cities Service has rigged up rotary for a 10,000 ft. wildcat at Widdecomb Creek in section 30-6n-16e, Wheatland county. It will explore the Charles formation.

UTAH

Carter and Stanolind were coring below 10,945 feet at the Blue Bell wildcat in Duchesne county. Previous tests have turned up varying recoveries of oil and gas cut mud and water.

Carter and Stanolind are unitizing a 34,000-acre area embracing the Roosevelt sector in Uintah and Duchesne counties, with Phillips Petroleum and others joining in the unit. The program calls for nine development and exploratory wells.

In the San Rafael area of Emery county, General Petroleum's venture was coring below 4020 ft., after testing gas and water in the Coconino between 3618-3712 ft.

NEW MEXICO

Southern Union recovered gas cut mud and water in a test of the Dakota sand at Stoney Buttes in San Juan county. The well is a mile from the recent discovery which made 40 bbls. oil and 40 bbls. water from the Dakota formation.

Penrose and Tatum have suspended the third well on the Rosa Unit in Rio Arriba county, on a block farmed out by Stanolind for a series of wells in the Pictured Cliffs formation.

IDAHO

Phillips is halted at 12,512 feet with a fishing operation at the Juniper Anticline wildcat in Oneida county. The well, deepest ever drilled in Idaho, may be in the Pennsylvanian. Sharp dips were reported in thick beds of Permian.

NEBRASKA

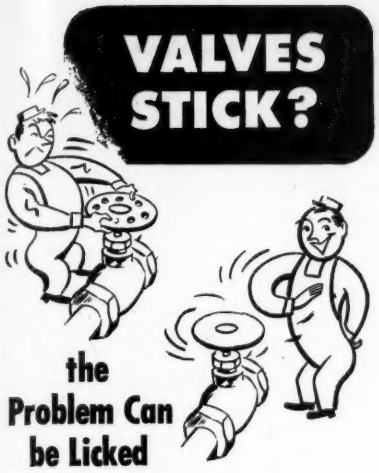
Stanolind has chalked up a failure at Harrisburg in Banner county, where a Dakota test drilled to 6659 ft. proved dry.

In the nearby Meade area, Kerr-McGee and Stanolind are drilling the third well on Stanolind acreage in the Julesburg Basin.

California Co.'s deep test in Sioux county (South Harrison area) was last reported below 1600 ft.

NORTH DAKOTA

Amerada was slowed up by a



the Problem Can be Licked

with *Electrofilm* S. F. L.

BONDED TO METAL "DRY" LUBRICATION

Recommended where ordinary lubrication is not adequate due to temperature, solvents, accessibility, etc.

Electrofilm S. F. L. "dry" lubrication takes up where ordinary methods are not practical—for valves, couplings, pumps, drilling equipment, etc.

Electrofilm also has excellent oil retention qualities to provide additional lubrication for gas engines, electric motors, etc.

Used by

U. S. Navy, Army Air Force, Atomic Energy Commission, Aircraft Mfgrs., Automobile Mfgrs., Refineries and hundreds of nationally known industries.

Job Shop Facilities to Serve You in Principal Cities Write, wire or phone

Electrofilm CORP

7116 Laurel Canyon Blvd.
No. Hollywood, Cal. Phone STanley 7-4844

stuck drill pipe at its Beaver Lodge wildcat in Williams county, now at 10,488 ft. It is scheduled to reach 12,000 ft.

WESTERN CANADA

Sinclair Oil Corp., thru a subsidiary, Sinclair Canada Oil Co., has joined British-American Oil Co. for an exploration program covering 900 square miles in the province of Alberta. Two seismograph crews are now in the field.

Under terms of the agreement, either of the parties may act independently of the other in acquiring oil and gas leases, but in the event of such acquisitions by one company the other party has the right to participate equally in any such acquisitions. Sinclair has the option to elect to participate in leases already held by B-A in the area covered by the agreement.

Oil from the Edmonton fields reached the lakehead at Superior, Wis., Dec. 4—just two months to the day from its starting point at the Edmonton pumping station. Average speed: 1½ miles per hour. The Edmonton station is expected to pump in 95,000 bbls. daily next spring.

Another oil discovery was reported early in December for southern Alberta near Drumheller, about 65 miles northeast of Calgary. Socony-Vacuum tapped 121 feet of D2 productive pay with indicated initial output of 2,000 bbls. daily, 34 gravity oil. The D2 was topped at 4417.

A previous discovery was chalked up in the Viking sand at Barons, 80 miles southeast of Calgary. It went on production at the rate of 25 barrels oil per hour, open flow. Bottomed at 4114 ft., the well had five feet of productive Viking sand. Possibilities in lower zones remain to be explored.

An increase in western Canada drilling activities was noted early in December, despite the advent of bitter winter weather. A total of 145 rigs was counted either making hole, preparing to spud, or moving to new sites. This was a new record for the four provinces.

Drilling activity was centered in Alberta, where 130 rigs were employed by American and Canadian firms. Of these, 79 were developng proven or sem-proven areas while the remainder was hunting for new strikes.

Alberta's 1947 major discovery at Leduc-Woodbend accounted for 40 rigs; Redwater had 23, and other oil and gas fields had 22 rigs.

In Saskatchewan, nine rigs were at work. British-Columbia reported four rigs at wildcat locations and Manitoba, two.

The Bureau of Land Management of the Department of the Interior announces that Robert S. Lytle of Los Angeles was the successful bidder for a lease on 100 acres of California oil land. The ground is a part of the site of the Navy Hospital at Long Beach and is in close proximity to production. Lytle offered $501.59 an acre or $50,159 for the 100 acres. In addition, he would pay a royalty of 16⅔ per cent of all oil produced.

Seasons Greetings From

R. R. "BOB" MORRIS

Formerly With

BRODERICK & BASCOM ROPE CO.

Now With

WESSON BUICK COMPANY

1233 So. Western Avenue

REpublic 2-9121

In BUICK It's... WESSON on WESTERN

HORNKOHL LABORATORIES

Chemical consultants in Petroleum Production, Testing & Core Analyses.

Bakersfield, Calif. — **Telephone 8-8567**
714 Truxtun Ave.

SMITH-EMERY CO.

Chemists—Engineers
Established 1910
Metals—Oils—Waters
Analyzed and Tested
Shipments Certified
Tanks Strapped
920 Santee Street, Los Angeles, 15
Member
American Council of Commercial Laboratories

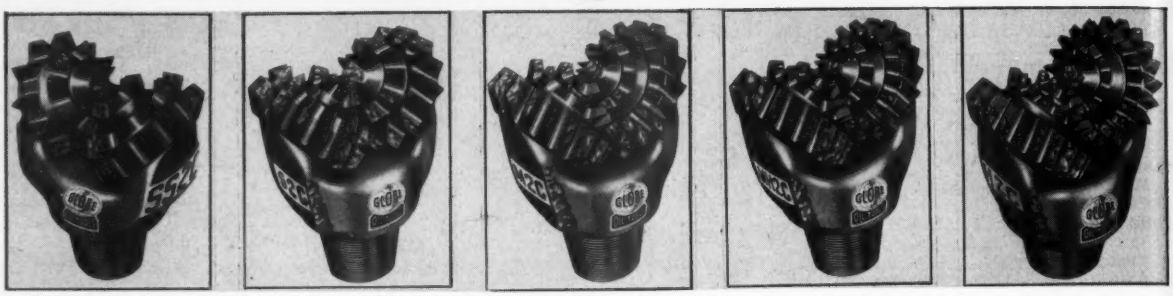
California Oil World's Monthly Summary

CALIFORNIA DEVELOPMENT AND PRODUCTION

OCTOBER, 1950 DEVELOPMENT

	Active Drilling Wells	Oil Wells Completed	Initial Production B/D	Oil Wells Completed First 10 Months	PRODUCTION Daily Average Oct. 1950	Daily Average Oct. 1949
SAN JOAQUIN VALLEY REGION						
Ant Hill					651	752
Antelope Hills				1	1,031	951
Antelope Hills—North				2	44	
Bellevue					227	229
Belridge—North					2,684	3,225
Belridge—South	1	3	259	38	7,494	3,481
Blackwell's Corner					74	115
Buena Vista		1	13	11	32,774	34,344
Calder				1	113	213
Canal					1,671	1,898
Coalinga Group						
Coalinga—Northeast					2,725	5,692
Coalinga—Nose				2	43,254	42,883
Eastside	2	1	13	2	13,369	12,257
Guijarral Hills				19	14,616	11,548
Jacalitos		1	15	6	3,820	5,794
Oil City					47	78
Pleasant Valley					2,626	2,921
Westside	2			2	7,159	4,544
Coles Levee—North	2			3	16,755	17,060
Coles Levee—South					2,976	2,014
Cuyama Group						
Cuyama South	3	9	1,969	109	31,319	6,363
Hancock Area					147	
Morales	3			13	1,163	
Russell Ranch		1	255	15	21,271	22,304
Edison	2	4	346	31	11,736	10,456
Elk Hills	5	4	1,958	40	6,686	6,764
Fruitvale	3	5	561	17	8,258	8,192
Gosford, East	1			6	2,333	1,447
Greeley					11,077	11,229
Helm					1,968	2,565
Kern Bluff				3	1,783	2,111
Kern Front					7,809	5,920
Kern River	1	3	38	3	13,691	8,290
Kettleman North Dome	1				28,360	30,849
Lanare					938	1,169
Lost Hills	1	1	15	4	5,493	5,927
McKittrick Group						
Belgian Anticline				3	1,230	1,357
Cymric					6,702	7,987
McKittrick					3,280	717
McKittrick Front	1				1,809	748
Salt Creek				1	3,652	3,798
Sheep Springs					745	596
Telephone Hills					695	
Temblor Ranch					68	64
Midway-Sunset	4	1	10	30	35,868	30,837
Mt. Poso Group					10,388	11,298
Mountain View	1	1	107	12	3,506	3,365
Paloma		1	20	12	8,208	10,091
Poso Creek Group	2				3,119	1,822
Pyramid Hills				1	183	212
Race Track Hill				1	1,512	1,817
Raisin City	1	1	174	16	4,608	4,244
Rio Bravo				1	10,527	10,014
Riverdale					1,910	2,816
Round Mountain Group	1				5,662	6,311
Strand					646	641
Strand—East					320	491
Tejon Group						
Tejon Ranch		2	94	6	2,141	2,178
Willow Springs	2	4	703	7	2,030	830
Ten Section					5,844	6,405
Union Avenue					150	148
Wasco					258	319
Wheeler Ridge				3	764	765
Other Fields	1	1	210	33	1,711	1,725
TOTAL—San Joaquin Valley Region	40	44	6,760	454	425,678	385,181
COASTAL REGION						
Santa Maria District						
Casmalia					225	289
Cat Canyon—East					10	53
Cat Canyon—West	4	2	492	3	14,906	11,729

	OCTOBER, 1950 DEVELOPMENT				PRODUCTION	
	Active Drilling Wells	Oil Wells Completed	Initial Production B/D	Oil Wells Completed First 10 Months	Daily Average Oct. 1950	Daily Average Oct. 1949
COASTAL REGION—Continued						
Four Deer					274	429
Gato Ridge					2,984	2,968
Guadalupe					83	
Lompoc					5,785	33
Olivera Canyon						66
Orcutt				1	3,607	4,584
Santa Maria Valley					13,172	13,178
Tinaquaic						6
Zaca Creek		1	41	1	4,186	
Santa Barbara District						
Capitan					1,966	2,092
Elwood				2	5,664	6,983
Santa Barbara					22	31
Summerland					5	22
Ventura District						
Montalvo West	1			1	691	687
Padre Canyon	1	1	636	5	6,671	6,340
Rincon				5	3,722	3,776
San Miguelito	1	1	1,083	6	9,046	5,998
Ventura Avenue	16	5	2,349	36	59,118	59,161
North Santa Clara Valley District						
Castaic Creek	1			1	243	
Castaic Junction	1			3	121	
Del Valle	2	1	485	6	3,496	3,566
Hopper Canyon				1	120	134
Oak Canyon				1	1,700	1,642
Ojai Group	1	1	36	4	433	422
Ramona				4	4,704	5,002
Sespe Canyon Group					229	370
Temescal					501	517
Others				1	114	51
South Santa Clara Valley District						
Aliso Canyon	2			4	4,417	3,356
Bardsdale	2			4	1,808	1,755
Las Llajas				1	16	
Newhall-Potrero	4	2	1,830	9	8,615	8,840
Oxnard					1,013	662
Placerita Canyon	2	1	74	57	13,381	27,410
Shiells Canyon					747	780
South Mountain	2			11	6 468	6,949
West Mountain					556	712
Others				4	724	645
Miscellaneous	3	1	9	5	825	47
TOTAL—Coastal Region	43	16	7,035	176	182,368	181,685
LOS ANGELES REGION						
Brea-Olinda				3	14,234	13,964
Coyote—East	1			8	5,269	4,118
Coyote—West	2	1	165	11	10,482	12,160
Dominguez, East					17	20
Dominguez, Main	1	1	253	6	12,178	12,427
Dominguez, Southeast				1	486	332
East Los Angeles				5	1,669	1,297
El Segundo					282	360
Huntington Beach	5	5	1,040	58	59,593	53,835
Inglewood		4	344	24	13,894	14,134
Lawndale					521	579
Long Beach	7	3	267	46	23,161	22,988
Montebello	1			5	5,801	6,178
Newport		1	100	4	4,780	5,512
Playa Del Rey					1,701	1,619
Potrero					966	1,191
Richfield	2	2	234	15	6,229	6,458
Rosecrans-Athens Group	1			2	4,994	6,521
Santa Fe Springs				7	14,561	14,392
Seal Beach				9	11,922	11,639
Torrance	1	1	55	4	7,105	7,331
Whittier					685	511
Wilmington	14	23	4,810	152	137,754	110,485
Yorba Linda					1,185	160
Other Fields	4	1	317	12	2,875	1,954
TOTAL—Los Angeles Region	39	42	7,585	372	342,344	310,165
Outpost Wells	33					
Wildcats	22					
Gas Wells	3	8	Gas	37		
Abandoned Drilling Wells				423		
TOTAL CALIFORNIA	180	110	21,380	1,462	950,390	877,031



Globe Introduces Complete Line of "2-Cutter" Rock Bits

The complete line of "2-Cutter" Rock Bits is being currently introduced to the oil well drilling industry, by Globe Oil Tools Company of Los Nietos, California.

Featuring bigger cutters with larger ball and roller bearings, the Globe "2-Cutter" is establishing impressive records in both domestic and foreign fields and is in great demand, especially for (1) "crooked hole country" where sub-surface faults tend to throw the hole off vertical; (2) straightening holes which have gone off vertical in any formation; and (3) high speed digging in strata ranging from soft to medium hard.

These "2-Cutter" bits usually are run with less weight than conventional "4-Cutter" types; however, the bearing capacity has been developed to such a high degree of strength that ordinarily they will take the full load on any rig.

The complete line of Globe "2-Cutter" Rock Bits consists of five models; the SS2C, for surface hole and soft sticky shales where open tooth design is more effective; the S2C, for unconsolidated and broken formations particularly in soft shale where "balling up" presents no special problem; the M2C, also a long tooth bit for unconsolidated formations, especially adapted to medium shales interspersed with layers of hard strata; the MH2C, for chippable formations in hard formation, "crooked hole country" where straight hole bits are required from top to bottom; and the H2C, Globe's hardest formation "2-Cutter" bit, also a "top to bottom" bit used to maintain straight holes in difficult strata.

B and W Latch On Centralizers

The new "Kon-Kave Bow" of the B and W Latch-On Centralizer has greatly increased the strength or resistance to side-thrust of this equipment. The new centralizer spring employs the principle of the arch in its curved cross section, and has double the strength of the usual flat spring. This increased strength provides positive centering of the casing, and insures a uniform collar of cement entirely around it.

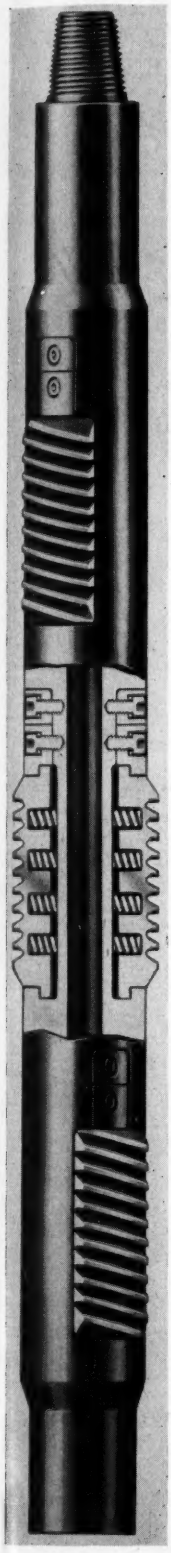
The "Kon-Kave Bow" is drop forged from high quality alloy spring steel and the usual heat treatment is supplemented by additional treatment to relieve all internal stresses created in forming the bows and welding them to the hinged collars. This thorough treatment produces a stable spring that will withstand the flexing stresses as casing is run and still retain their original outer diameter.

Because only the curved back of the bows contacts the surface casing and formation B and W Latch-On Centralizers run smoothly without resorting to snubbing. Their original hinged construction now combines easy installation with the added features of increased strength and ease of running.

Manufactured by B and W Incorporated, P.O. Box 5256, Houston 12, Texas; or 3545 Cedar Avenue, Long Beach 7, California.

There is no reason to ration civilian gasoline short of a 'catastrophe" or a submarine blockade. That is what was said recently by Bruce K. Brown, Petroleum Administrator for Defense. He explained that there is no intention at present to reduce the power of motor fuel.

Grant Introduces New Casing Scraper



Grant Oil Tool Company is now manufacturing a casing scraper that can be either rotated on a tubing string or operated vertically on a wire line to remove burrs, cement, mud, paraffin or other restricting agents from the casing wall.

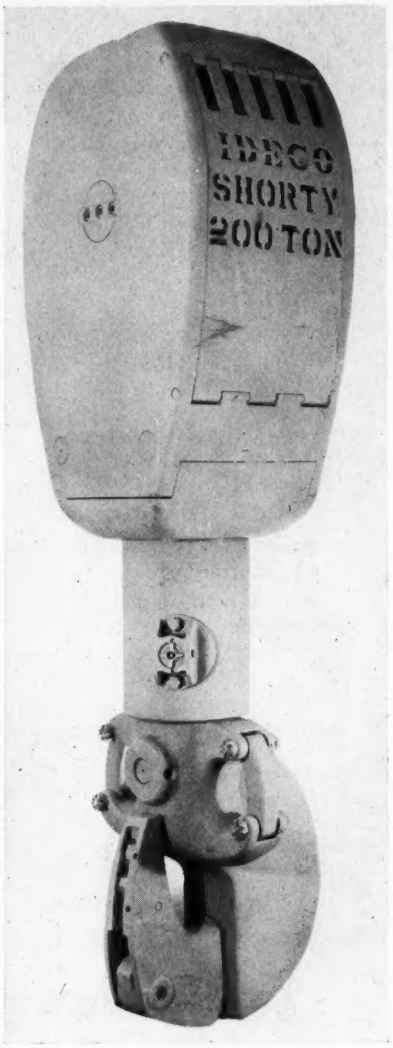
This scraper is simple yet rugged in construction and is designed to permit circulation through the tool when necessary.

The cutters are held against the casing by heavy springs and are so spaced that they total more than 360 degrees, consequently they must contact the full circumference of the casing. Although the cutters are held securely to the tool by a completely foolproof locking device, they can be quickly and easily removed and exchanged in the field when this is required.

Spacing of the cutters is arranged so as to facilitate fluid flow past the outside of the tool, and 66 hard-faced cutting edges and the helical design of the teeth combine to give a shearing action that effectively removes burrs and foreign material from the casing wall.

200 Ton Ideco Shorty Block

The International Derrick & Equipment Company, Dallas, Texas announce the addition of a 200 ton capacity block to their regular line of Shorty blocks.



These blocks have found wide acceptance among operators using drilling and servicing masts. They are unitized assemblies which combine the block, spring loaded link adaptor and swivel bail hook into a short compact assembly. Added head room provided by this design permits faster operation as the pipe may be hoisted safely at full speed to the top of the run. The 200 ton capacity Shorty block has 36″ Fabriform sheaves manufactured by Ideco's Beaumont plant. Dynamically balanced for smooth operation, Fabriform Sheaves give increased wire line and sheave life. The 200 ton Shorty Block features a hydraulic cushion return that eliminates snap and jar of the hook. Ideco Shorty Blocks are available in 200 ton, 125 ton, and 65 ton capacities.

G. P. Adds to Torrance Refinery

General Petroleum Corporation has added a new catalytic polymerization unit to its Torrance refinery which will provide about 700 barrels of high grade blending stocks each day for use in the refinery's output of motor gasoline.

The new unit is fed with a mixture of two hydrocarbon gases, propane and propylene. These gases are by-products of all refinery cracking operations and are separated from both heavier and lighter material in the refinery's central gas processing plant.

In the reactors of the new unit the molecules of the propylene gas join up to make gasoline molecules which are liquid at ordinary temperatures and pressures. Hence, they are more easily handled than gases and are more suitable for motor gasoline blending. A phosphoric acid-catalyst aids and speeds up the process.

The propane molecules contained in the original mixture fed to the unit do not enter into the reaction. They remain in their original form and, after being purified, are sold as liquid petroleum gas. The amount of propane produced varies with the particular mixtures being fed to the unit at any given time.

The new polymerization unit is now in operation. It represents an investment of over $400,000.

So. Calif. Meter Assn. January Meeting Scheduled for 18th

The Southern California Meter Association will hold their January meeting on Thursday the 18th at the Rio Hondo Country Club, Downey, California, dinner at 6:30 P.M., meeting at 8:00 P.M.

The featured talk will be by Dr. Albert W. Bellamy on "Nuclear Energy for Peace and War." The talk will be illustrated with motion pictures and discuss biological response in relation to Civil Defense planning and public instrumentation.

THIS LAUGH OFF!

The reporter tries to keep sources of his news confidential. On one occasion the veracity of a story written by a reliable reporter was questioned. When he insisted his tale was entirely true, the doubters pressed him for his source.

"I got it," he said with a grin, "from an unimpeachable leak."

"My wife and I used to have fun at the beach. First, she would bury me in the sand, then I would bury her. One of these days I'm going down and dig her up."

The doctor was very pleased with his patient's progress. "You are coughing more easily this morning."

Impatient Patient: "Well, for gosh sakes, I ought to be. I've been practicing all night."

The reason the average girl would rather have beauty than brains is that the average man can see better than he can think.

"Beneath this stone lies Kelly,
They buried him today.
He lived the life of Reilly—
When Reilly was away.

Harry: "Have any of your childhood dreams been realized?"

Jack: "One of them. When my mother used to comb my hair, I used to wish I didn't have any."

Bill and Jack were in the midst of a free-for-all.

"Bill, who started this?" asked the dad.

"Well, it all started when Jack hit me back."

Guest: "Well, good night, and I hope we haven't kept you up too late."

Host: "Not at all. We would have been getting up soon anyway."

Hubby: "You never tell me what you're going to buy. Don't I get any voice in the buying?"

Wifey: "Yes, my love, you get the invoice."

Visitor (to host's little daughter) "How do you know it's the first of the month, dear?"

"Cause all of daddy's letters have got front windows in them."

Farmer: "See here, young fellow what are you doing up that tree?"

Boy: One of your apples fell down and I'm trying to put it back."

Reduce Pipe Line Costs With This "SLIMMING DIET"

Excess weight and material in a pipe line is expensive and unnecessary. With Armco Welded Steel Pipe, you choose the exact wall thickness you need (.074 to .239 inches) in any diameter (4 to 24 inches). It gives you top efficiency at low cost.

Armco Pipe saves on installation too. Long, light-weight lengths simplify handling. Accurately beveled pipe ends make field welding easier.

Use Armco Pipe for oil and gas lines, gathering systems and wherever else you need dependable piping. Write for complete information.

ARMCO DRAINAGE & METAL PRODUCTS, INC.
CALCO DIVISION
2610 Seventh St., Berkeley 10, Calif.
6155 S. Malt Ave., Los Angeles 22, Calif.

Armco Welded Steel Pipe

PUMP SUCTION HOSE

PULL a steady flow of mud through your mud pumps. Goodall's "Spartan" pump suction hose is flexible, absorbs all pump vibration — follows the level of drilling mud as it varies in slush pit saving pipe adjustments.

Strong, abrasive resisting tube, reinforced construction — smooth bore assures long service. Available in 5' 8" lengths in 6", 8", 10", and 12" diameters Available with built-in nipple if desired.

OTHER GOODALL PRODUCTS All Types Industrial Rubber Goods plus Steam, Suction, Fuel, Discharge, Cement and Flue Cleaner Hoses.

GOODALL RUBBER CO.
LOS ANGELES · SAN FRANCISCO
SEATTLE · DENVER · SALT LAKE CITY

CALIFORNIA
OIL WORLD

COVERING
New Mexico
California
Wyoming
Montana
Colorado
Idaho
Utah
Western Canada

TWICE MONTHLY
SECOND ISSUE
DECEMBER 1950

UNIV. OF MICHIGAN
JAN 8 1951
EAST ENGINEERING LIBRARY

The SCHLUMBERGER Photoclinometer SURVEY

A FAST AND ECONOMICAL METHOD OF OBTAINING ACCURATE DIRECTIONAL DATA IN YOUR DRILL HOLE

Surveying began with the early Egyptians—witness the precise measurements of the Great Pyramid. In 1600 B. C. the Chinese used the magnetic compass. George Washington was well versed in methods of triangulation. The Schlumberger directional survey instrument is an adaptation of the age old surveying principles of compass and plumb bob.

Surveying underground rights is as important as surveying surface rights where oil properties are concerned. You should make a practice of directionally surveying your drill hole.

The Schlumberger Photoclinometer Survey offers you:

1. Accurate directional data of your drill hole including the bottom-hole position.
2. Accurate vertical correction at any depth.
3. Economical service because of low initial cost and saving of rig time, since the operation follows the electrical survey.
4. Complete drill hole surveys in a minimum of time, because the operation of the instrument is controlled from the surface.

SCHLUMBERGER

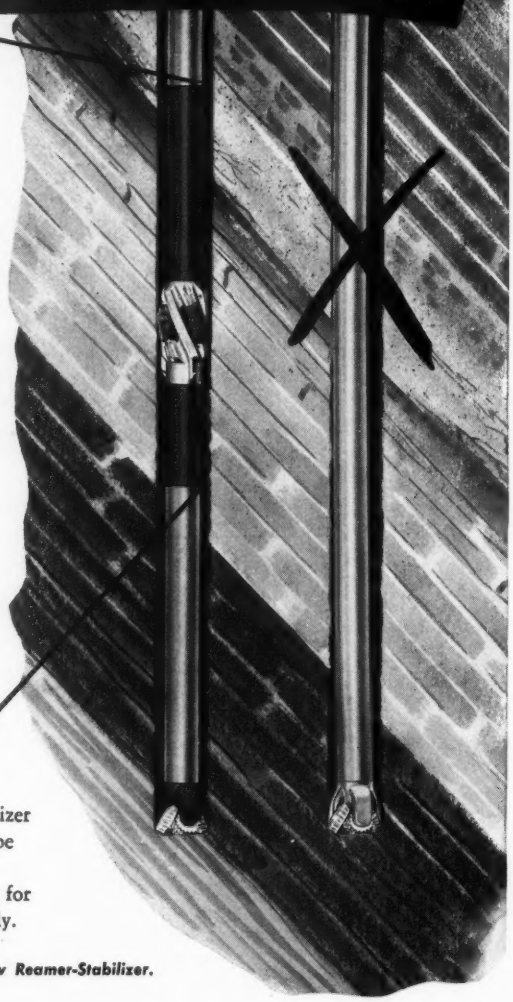
The Photoclinometer is one of the earlier developments of Schlumberger's progressive program of research and engineering to provide advanced services to the oil industry.

SCHLUMBERGER WELL SURVEYING CORPORATION • HOUSTON

Stabilize YOUR DRILL STRING

- **INCREASE DRILLING WEIGHTS**
- **ELIMINATE DRILL PIPE WHIP**
- **MAKE FULL GAGE HOLE**
- **ELIMINATE BIT WOBBLE**

When the new Security Reamer-Stabilizer is run between drill collars, it not only insures clean full gage hole, but provides unexcelled drill string stabilization. With three barrel-shaped cutters contacting over a third of the wall circumference at all times, this new tool acts as a large roller bearing, absorbing and transmitting to the formation all forces tending to start drill stem whip and rock bit gyration.



LOOK AT THESE NEW FEATURES

- **111 per cent stronger.**
- **Heavy ribs between cutters give maximum strength in torque and bending.**
- **Barrel-shaped cutters provide proper bearing surfaces for efficient stabilization.**
- **Open pockets and directed return circulation keep cutters clean.**
- **Cutters retained in body by exclusive locking device.**

The result of running the Security Reamer-Stabilizer is a smooth drilling string to which weight may be added *without* the usual undesirable effects. Drilling can proceed at a faster rate and the time for the entire drilling operation is reduced appreciably.

Ask your Security Field Representative about this new Reamer-Stabilizer.

Security

ROCK BITS • CORING BITS • HOLE OPENER • CASING SCRAPERS • SECURALOY

SECURITY ENGINEERING CO., INC.

ONE OF THE DRESSER INDUSTRIES

Main Office: Whittier, California

Branches in all major producing areas.

Export Office: Chanin Building, New York City

McCULLOUGH SERVICES:

A ELECTRIC WIRE LINE SERVICES

1. PERFORATING—Deepest penetrating burrless bullet and jet.
2. BRIDGING PLUGS—Drillable, expandable. McCullough and Baker
3. MAGNA-TECTOR*—Locates stuck point of pipe, accurately, fast!
4. JET CASING CUTTERS*—World's fastest casing, tubing, drill pipe cutter!
5. JET BACK-OFF TOOL* and STRING SHOT—World's fastest way to recover stuck pipe!
6. JET BOTTOM HOLE CUTTERS*—Fragmentizes lost or stuck fish!
7. ELECTRONIC WEIGHT INDICATOR*—Supersensitive, small, light!
8. SONIC COLLAR LOCATOR*—Locates collars, liner tops, well bottom, etc.
9. MAGNETIC FISHING TOOL*—Surface indicates location and recovery of fish.

B ROTARY SERVICES

1. DOUBLE ACTING ROTARY JARS* and BUMPER SUBS—Reduces number of fishing jobs!
2. SAFETY JOINTS—Releases quickly in emergencies!
3. EXTERNAL DRILL PIPE CUTTERS—For all outside pipe cutting.
4. MECHANICAL LONG KNIFE INTERNAL CASING CUTTERS—All sizes pipe, tubing.
5. THIN WALL EXTERNAL CASING CUTTERS*—For outside cutting in small clearances!
6. ROTARY RELEASING OVERSHOTS—Completely encircles fish.
7. ROTARY RELEASING SPEARS—Engages or disengages at will.
8. GUN TESTER—Water shut-off, perforating, testing in one run.
9. JUNK BASKET—Crushable finger type. 5 minutes on bottom.

Exclusive McCullough Services

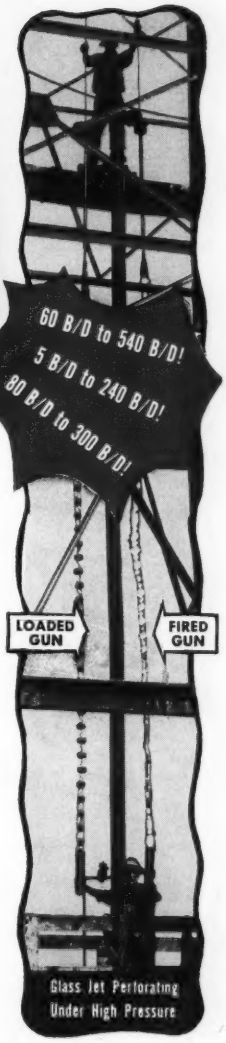
PETROLEUM EQUIPMENT SUPPLIERS ASSOCIATION MEMBER

McCULLOUGH® GLASS JET PERFORATORS

Mean MORE OIL in the tank, even after all other methods fail!

PROOF!

60 B/D to 540 B/D!
5 B/D to 240 B/D!
80 B/D to 300 B/D!



MORE *Oil in the TANK means MONEY in the BANK...*

...and that's what you're after!

When you want cleaner, deeper, straighter holes, even after all other methods had failed to get results, there is only one choice—the new McCullough Glass Jet Perforator. Your reward—MORE OIL in the tank, MORE MONEY in the bank! No carrots or slugs, no splitting or sticking guns, trouble-free jet perforating for the FIRST time!

No matter how you look at it the McCullough Glass Jet Perforator makes sense. The emphasis is on the Glass Jet and not on the carrier. This permits the maximum safe charge of explosives where MORE POWER is needed—in small pipe in deep wells where several casing strings exist. The special heat treated glass units disentegrate completely The retrievable strip carrier is pulled from the well.

Whatever your perforating problems—you're after MORE OIL in the tank. GET what you're after with the McCullough Glass Jet Perforator!

AVAILABLE NOW—See Your McCullough Service Man TODAY!

McCULLOUGH Tool Company

5820 South Alameda Street, Los Angeles 58, Calif. • 405 McCarty Street, (P.O. Box 2575) Houston, Texas
Export Office: Los Angeles, California

TEXAS: Snyder, Alice, Houston, Cisco, Corpus Christi, McAllen, Odessa, San Angelo, Tyler, Victoria, Wichita Falls. **OKLAHOMA:** Oklahoma City, Guyman, Healdton. **MISSISSIPPI:** Laurel. **NEW MEXICO:** Hobbs. **KANSAS:** Great Bend. **CALIFORNIA:** Los Angeles, Avenal, Bakersfield, Ventura. **LOUISIANA:** Houma, Lake Charles, New Iberia, Shreveport. **WYOMING:** Casper. **CANADA:** Edmonton. **VENEZUELA**—United Oilwell Service Co., S.A.: Caracas, Anaco, Maracaibo

Made in California for California Operations

FRANKS MFG. CORP. WELL SERVICING AND DRILLING UNITS — TRAILER-MOUNTED UNIT

This Franks Model 44DDT unit for general well servicing to 5500 ft. maximum, is a natural for California. There are many model variations. Here are some of the features:

MEETS HIGHWAY REGULATIONS: Today's highway weight restrictions must be met, and Franks Trailer-Mounted Unit does this through use of lightest possible materials, consistent with the high safety factor Franks has always maintained.

EASE OF OPERATION: No other servicing hoist can offer air operated clutches which can be feathered into partial or full engagement, and which will remain in full engagement without sustained air pressure. Rods and tubing are not JERKED out with the Franks clutch, they are PULLED out.

SAFETY: Is paramount in California, as in all oil areas. Franks design affords maximum safety. The derrick is not simply guarded against falling while being raised to vertical position, the power driven screws which raise it CANNOT MOVE in either direction except under power. A cable break cannot allow the upper section to drop more than 18". Automatic cut-off switches prevent its being over-extended.

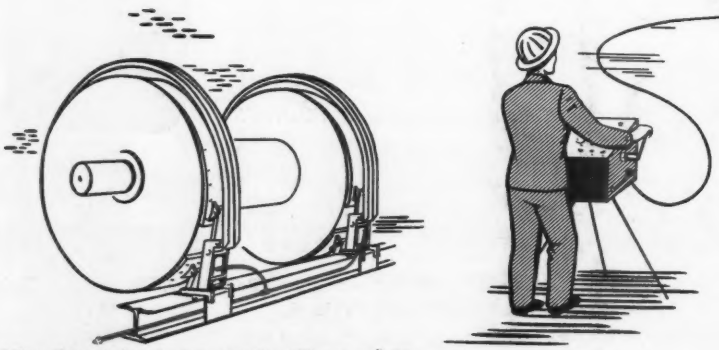
Another factor of safety receiving prime consideration in the oil fields is operator fatigue. With Franks controls, the operator (the man who starts the machinery and must stop it in case of mishap) can retain maximum alertness, while doing more work, with less fatigue.

HYDRAULIC ADJUSTMENT: Tighten these brakes with an ordinary grease gun, through one grease fitting. Equalization is simple, positive, HYDRAULIC.

REMOTE CONTROL: Whatever the location, the operator selects the best control station, ANYWHERE within 25 feet of the hoist.

There are other features, too, but to really get the picture in relation to your problems, call Franks California representative.

Franks Telemech remote control box. Operator selects most advantageous control station. Better vision and no strain on neck.



Adjust these brakes in two seconds, with an ordinary grease gun. This hydraulic system assures positive, complete equalization. (Red shows the hydraulic line.)

FRANKS MFG. CORP.
WELL SERVICING AND DRILLING UNITS
TULSA, OKLAHOMA

CALIFORNIA DIVISION OFFICE AND PLANT
909 N. Alameda, Ph. Newmark 2-4181 or Nevada 6-1468
COMPTON